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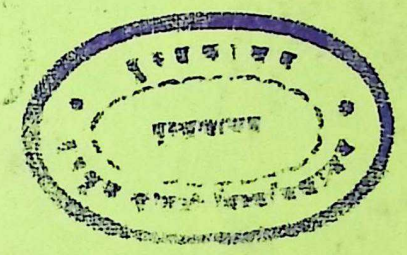

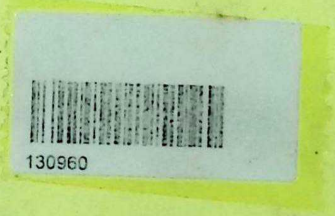

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Influence of Socio-Cultural Factors on Age at First Menstruation

R Lall[1] and N. Marwaha[2]
Government Home Science College
Panjab University, Chandigarh

The data on age at menarche of 100 girls belonging to different socio-cultural practices, were collected from four schools of Chandigarh. All the girls were randomly selected 63% girls showed early maturity (8-12 years) than average age at menarche of Indian girls. The average age at menarchae of early mature girls mother and sisters (s) was also lower. Small family (3-6 members) ; friends of opposite sex and older in age ; effect of mass media ; pocket money (Rs. 25 or more per month) ; movies like family dramas and adult ; movies seen with friends and discusston about boys, movies, books, magazines and mensturation itself vere conducive socio-cultural factors for lowering the age of onset of mensturation in school girls.

INTRODUCTION

In adolescence time the girls undergo the tension of physical changes of puberty and are becoming capable of reproduction, full physical participation in work and hence, great potential for mature and responsible action. Besides physical, physiological and nutritional factor it has been found that girls of superior level of intelligence natur sexually earlier than those of average intelligence. Girls from urban areas tend to mature earlier than their rural agemates. There is possibility that increased exposure to sexual stimulation may also speed up early maturing to girls (Jhonston *et al.*, 1975). Again, the socio-economic factors also has an effect upon the age of maturity. Girls belonging to the higher socio-economic group mature earlier than those belonging to the lower socio-economic strata (Hurlock, 1976). The present study therefore was undertaken to indentify the various socio-cultural factors and their influence on the age at menarche of school going girls.

* Part of the M.Sc. Thesis submitted to the Government Home Science College, Panjab University, Chandigarh.

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METHODOLOGY

Twenty five girls were randomly selected from each of four schools viz ; Carmel Convent, St. Kabir, St. Mary and Senior Model School of Chandigarh. Girls from the fifth class onwards and who had started menstruating formed the sample population. The girls were selected from both high and middle income groups in order to carry out an unbiased study. Survey method was used and the data were collected by interview technique. As the girls would experience difficulties in understanding and filling out the questionnaire on their own, therefore, interview was carried out with the help of approved structured questionnaire frammed by the first author. To obtain the correct information the questionnaires were pretested on ten girls. The following observations were recorded.

1. General information consisting of name, age, education and comp ion of the family, and

2. Information regarding effect of mass media, comparising question such as the number of movies seen in a month, kinds of movies seen, kinds of books read, age and sex of friend circle, age at menarche of girl's mother and sister (s). The data were statistically analysed as suggested by snedecor and Cochran (1968).

RESULTS AND DISCUSSION

Table-1 : Age of menarche of girls, their mother and sister (s).

Age at Menarche of girls (Years)	Per cent of girls	Average age of menarche of mothers (Years)	Average age of menarche of sister (s) (Years)
Very early (8-10)	22	11·2	9 8
Early (10-12)	41	13·3	12·2
Normal (12-14)	34	13·8	13·8
Late (14-16)	3	14·9	13·5

Twenty two percent of the girls reached manarche between 8·10 years, 41% between 10-12 years, 34% between 12-14 years and only 3% girls were between 14-16 years of age (Table 1). Thus the majority of girls (63%) were very early and early matured which could possibly be due to the influence of various socio-cullural factors. From Table 1, it was also found that the mean menstruate age of the girl's mother and sister(s) was also lower among the very early and early matures, while it was higher for the normal and late mature groups. This indicated that age at menarche might be heritable in nature. Similar was the view of Novak and Woodruff (1974).

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Table-2 : Percent of girls of different social-class and family size.

Factor	Criteria	Per cent of girls
Social-Class (Monthly family income)	Low income group (< Rs. 2000/—)	—
	Middle income group (Rs. 2000 to 3000)	45
	High income group (Above Rs. 3000)	55
Family size (No. of members)	Very small (0—3)	—
	Small (3—6)	70
	Larger (6—9)	

Most of the girls belonging to the middle income (45%) and high income (55%) group (Table 2), both of which are able to spend a substantial amount on good food and rich diet, which in turn might be condusive to an early maturity of girls. Further, it was observed that 70% girls belonged to small family of 3 to 6 members, while 30% belonged to larger family including 6 to 9 members. It could be thus envisaged that the small family size is one of the factors responsible for onset of menarche in girls.

Table-3 : Socio-Cultural factors indulge in menstruation of girls.

Socio-cultural factors	Criteria	Percent of girls
Age of Friends	Below age	12
	Same age	48
	Higher age	80
Sex of Friends	Boys	75
	Girls	25
	Both	60
Possession of Media	Television	90
	Video	30
	Tape recorder	100

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Pocket money received permonth	Less than Rs. 25	—
	Rs. 25 to Rs. 50	24
	More than Rs. 50	76
No. of movies seen permonth	Less than 2	19
	2 to 4	47
	more than 4	34
Types of movies seen	Family dramas	42
	Stunt movies	11
	Adult movies	30
	English movies ('U' & 'A')	17
Types of talk indulged in mensturation	About boys	28·8
	About movies	26·6
	Books & magazines	17·6
	School books	11·3
	School teachers	15·5
Discussion on mensturation	Yes	93
	No	7

Persual of table 3 indicated that since 48% and 80% girls preferred friends either of their own age or elder to them and maximum number of girls (75%) associated with the opposite sex, it could be inferred that the association with friends of opposite sex and higher in age might be an important factors influencing the age at menarche. It could be assumed to have some what lowering effect on the maturity possible due to a positive social stimulatory effect of the association with the opposite sex. It was further observed that the girl's were exposed to the effect of mass media i. e. Television (90%) video (30%) or Tape Recorders (100%). Thss exposure could be another significant factor in the early onset of mensturation as similar was the view of Johnston *et al.* (1975).

Majority of the girls spent their pocket money on seeing a number of movies which causes psycho-sexual stimulation. About 47% girls saw 2-4 movies per month. So movies do have an influence on the age at menarche, possible being conducive to lowering it. Again, 42% and 30% girls liked seeing family dramas and adult movies and 62% girls liked seeing movie only with their friends (Table 3). Since early onse of menses can also be a matter of stimulation of endocrine hromones through cinemla and television, therefore, it can be concluded that the strong influence exerted by famils dramas and adult adult movies could be the possible cultural factors responsible to early onset on menarche. Again as girls preferred to see movi with their friends, they discuss and comment upon certain topics, from which they must refrain in the presence of thesis parents or elders. Thus, this might be one of the social factors which enhanced the psycho-sexual stimulation of girls.

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It was also found that 28·8% 26·6% and 17·8% girls mostly discussed about boys, movies and books and magazines, respectively. No twithstanding, school books featured very little in the talks and discussion of school girls (11·3%). Further, majority of girl's (93%) indulged in discussion on menstruation while only 7% girls did not indulge in any such discussion (Table 3). Therefore, the opposite sex, movies, books other than school books, magazines and menstruation it self lead to psycho-sexual stimulation of the girls and thus this stimulation could be considerd as conducive factors for lowering the age of onset of menstruation.

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Agricultural Knowledge and Communication Behaviour of Rural Youth

M.S. Nataraju* And G.N. Nagaraja**

INTRODUCTION

The progress and prosperits of a nation to a very great extent depend on how well trained and desciplined its youth are. Youths are the future of the Country. Youth as a vital section of the community have their share of the nation's plans and programmes. The greatest potential of the solution to our food problem lies in the right guidance and training of the rural youth leaders who in turn will help the rural youth to develod themselves into specifis farmers and enlightened citezens of India in the near future. The youth, a bulk of total population of our country, are the national cream and the future crown with full possession of physical built and mental tenacity and power.

One of the main task of extension agency is to provide and improve the knowledge of farmers, farm women and farm youth about the improved farm practices. To make the youth particularly enlightened and useful for the quick diffusion and acceptance of scientific agriculture, we should take the present stock of accounts and propose an appropriate strategy for future. Studies on rural youths are limited in our Country. The findings of such type of studies guides the policy makers in designing the rural youth projects and in using this power for effective transfer of technology. Hence, the present study was conducted with following specific objectives.

(i) To know the socio-economic and personal characteristics of rural youth.

(ii) To study the knowledge level of rural youth in agriculture and

(iii) To analyse the communication behaviour of rural youth.

METHODOLOGY

This study was conducted in purposively selected Kodigehally and Jakkur villages of Bangalore rural district in Karnataka. From the list of youths of the villages (15 to 30 years age group) 40 youths were selected randomly twenty from each village. The

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** Assistant Farm Management Specialist, respectively, Directorate of Extension, Hebbal, Bangalore- 560024.

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data were collected by personally interviewing the respondents with the help of structurdd interview schedule. Simple Teacher's Test was administered to the respondents with 25 relevant knowledge items which included the items relating to variety, mannures and fertilizers and plant protection chemicals and their application. A score of one was given to each correct answer. The total attainable score was 25. The respondents were categorised into low, medium and high based on mean and standard deviation of scores. Percentages and frequencies were used to analyse the data. The results of the study are presented hereunder.

Differential characteristics of rural youths : The data in Table 1 indicate that majority of the youths were in the age group of 16 to 20 years (55%), had 6 to 10 years of education (70%), belonged, to medium sized joint family (65%), belongs to low income group (60%), helped their parents in agriculture (65%) and willing to take up farming as their primary occupation in future (70%). This study reveals that there were ample evidences about rural youth who are useful for their own family and nation at large. As majority of them were willing to take up farming, as their future occupation, we can be assured of good tempo of production in agricultural sector if this sector is properly guided.

Table-1 : Differential characteristics of rural youths.

50=40

N=40

Characteristic	Categories	Number	Percent
Age	Young (16—20 years)	22	25·0
	Middle (20—25) years)	20	55·0
	Old (26-30 years)	8	20·0
Education	Low (Below 5th standard)	8	20·0
	Medium (6th-10th standard)	28	70·0
	High (11th standard & above)	4	10·0
Type of family	Joint family	23	57·5
	Nuclear family	17	42·5
Size of family	Small (below 3 members)	3	7·5
	Medium (4 to 6 members)	26	65·0
	Large (above 6 members)	11	27·5
Family income	Low less than Rs. 1500/year)	24	60·0
	Medium Rs. 1501-3000/year)	12	30·0
	Hsgh (Rs. 3001 & above/year)	4	10·0

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Type of farming experience	No experience	4	10·0
	Helpin parents in agriculture	26	65·0
	Supervising from operations	10	25·0
Willienghess to take up farming in future	Not willing	12	30·0
	Willing	28	70·0

Knowledge level of rural youth in agriculture : From the data in Table 2 it is interesting to note that majority of the respondents had medium (62·5%) knowledge in agriculture while one-fourth had high knowledge and the remaining had low knowledge level. It was also found that majority of the rural youth possessed medium knowledge level with respect to mall the practices considered under study viz. varieties. manures and manuring, plant protection measures.

This finding calls the attention of extension educators to educate the youths properly and help them to acquire correct information on package of practices in general.

Table-2 : Knowledge level of rural youths min agriculture.

Level of knowledge	Number	Percentage
Low	5	12·5
Medium	25	62·5
High	10	25·0

Communication behaviour of rural youths : Communication behaviour of rural youth are analysed in two dimensions. Sources of in formation which helped them to to acquire knowledge in agriculture and the persons to whom the rural youths communicated their knowledge gained in agriculture. The findings on these aspects are given in Table-3.

Table-3 : Communication behaviour of rural youths.

Sources used for information gathering				Persons to whom information communicated			
Source	N	%	Rank	Person	N	%	Rank
Mass media	30	75·0	I	Friends	20	50·0	I
Government agency	16	40·0	II	Parents	11	27·5	II

Contd.

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Friends and neighbours	14	35 0	III	Relatives	7	17·5	III
Private agency	2	5·0	IV	Neighbours and others	6	15·0	IV

(Percentages exceeds 100 due to multiple responses)

The data indicate that mass media such as Radio, newspaper and extension publicity media like literature, wall paintings were used by majority of the respondents for information gathering (75%) followed by Government agency (40%), friends and neighbours (35%) and private agency (5%). This finding is in confirmity with the findings of Bellan (1973) who reported that the individual contact approach followed by indirect influence had influenced the farmers for adoption while mass contact methods were used for information gathering.

Further analysis of the data in table-4 indicate that nearly half of the youth (50%) had discussed and communicated the knowledge gained to their peers and friends with who they most of the time interact.

Conclusion and implications : 1. Majority of the youth are willing to take up farming in future, hence there is ample scope to organise training programmes to young people and to drop outs with practical agriculture. 2. Since youth were found to disseminate the new findings and technology to other members of their rural settings, they deserve to be considered as educators for adult literacy programme and such other national programme. 3. In as much as the mass media and Government agency were found to play paramount role in enriching the scientific knowledge of the rural youth, they may be further geared upto continue to plao effective role in future also.

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"Lady Macbeth-A Psychological Analysis"

Through the psycholagical analysis of 'Lady Macbeth' the author vtvidly described the various neurotic and psycholtic aberrations of Lady Macbeth. Neurotic reactions of Laay Macbeth are high ambition, obessive thoughts, somnambulism, Washing mania and Guilt feeling. The various escape mechanisms or dynamisms of her mind are repression, suppression, resistance and substitution. Psychotic reactions, like Hallucinations and delusions, (commonly seen in Schizo phrenics) of Lady Macbeth are also clearly portrayed by the author. The characterisation of Lady Macbeth and the dynamics of symptom formation are psychologically sound and it is concluded that Shakespeare's intuitive notions of symptom formation are validated by the findings of modern psychology.

INTRODUCTION

A psychological study of Shakespeare's tragedies may make one doubt whether Shakespeare was a man of abnormal personality. It is evident from the fact that in some of his plays either the here or the heroine or both suffers from some mental illness. Macbeth suffers from 'Insomnia' (sleeplessness). Lady Macbeth suffers from 'Washing mania' and 'Somnambulism' (sleep-walk)' julius Ceasar suffers from 'Epileptic Seizure' Hamlet has got oedipus Complex and othello wes a paranoiac. Neurotic people are conscious of the pathological nature of symptoms while psychotic people are not aware of even that. Only an adjusted person can have insight into the dynamics of symptoms. In fact, psychotherapy often consists of making the patient aware of the dynamics behind his symptoms. If Shakespeare was insame he would not have had awareness into the psychological dynamics behind symptoms. On the other hand, if his characterisations of abnormal behaviour are sound in terms of psychological principles, it would seem to indicate that Shakespeare was on extraordinarily stable person with considerable insight into his own mind and the dynamics of symptom formation in a variety of pathological types. Lady Macbeth represents an interesting character with several mental aberrations. So it is felt worth while to study the various neurotic and psychotic reactions of Lady Macbeth in order to see whether the characterisation of Lady Macbeth is psychologically sound.

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NEUROTIC REACTIONS

Ambitions : Lady Macbeth was a women of high ambition. She wishes to become the queen of Scotland. So the prophecy of the witches has only contributed its share to her ambition and no doubt it has the lion's share. She wishes to have many children and to become a proud mother. In her own words, "I have given suck, and know

How tender 't is to love the balie that milks me : I would, while it was smiling in my face, Have plucked my nipple from his boneless gums, and dashed the brains out, had I so sworn as you Have done to this".

It is still doubtful whether Lady Macbeth had any children at all. Perhaps they had all died in infancy. The strain of frequent child bearing and the rapeated shocks of bereavement had evidently frayed her nervesand her nature was somewhat highly strung. She could not satisfy her 'high desire' to become a mother and satisfy her maternal urges. When there is a wide gap between the aspiration (ambition) and achievement in life, nervous breakdown is sure to occur (Rickey, 1981). This has happened in the case of Lady Macbeth.

Eventhough she was a women of abnormal character, occasional normality is .eem in her. When Duncan appreciated the pleasant site and the sweet air of Macbeth's castle, Lady Macbeth as an ordinary, normal, delicate women remembers her fathers. This is clear in a later scene when she says, "Had he not resembled My father as he slept, I did done 't".

The famous soliloquy which Lady Macbeth utters, while she awaits her victorious hsband who has written to her in advance of his recent adventures and whose home coming is expected to take place shortly, is a clear indication of her wicked ambition. "Come, thick night, And pall thee in the dunnest smoke of hell, That my keen knife see not the wound it makes, Nor heaven peep through the blanket of the dark, To cry 'Hold hold'.

Lady Macbeth has already invoked the powers of hell to "unsex" her and nothing shall stop her from her ruthless pursuit of her unscrupulous ambition. Here, she calls upon night to descent scriftly and suddenly and cover the earth with impenetrable darkness like a blanket so that it may be hidden from the sky and the gods above, who might otherwise interfere with her murderous 'purpose'. It is a daring and terrible fancy which only a fiend in the shape of a women-which Lady Macbeth has become-can utter. No normal women can utter the above mentioned words. This shows how mentally deviant she has become.

Neurotic : Even before the murder of Duncan she was a "neurotic". A neurotic is a person who suffers from neurosis. Neurosis is aloosely used term applied to a variety of comparatively mild mental disorders. It is a term referring to conditions characterized by certain signs, occurring in various combinations. The most usual of these combinations or syndromes have been distinguished as sub-types of neurosis namely anxiety

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neurosis, hysteria and obsessional neurosis (Mayer Cross et. al, 1960 ; Rimm and Somerevill, 1977) Lady Macbeth become a neurotic because she had no children. Child is the connecting link between husband and wife. She could not satisfy her maternal instinct. In our society, a stigma is attached to 'barren' women. She could not be called a barren women, because it is reported that she gave birth to children who might have died in their infancy or who might be still born. Even then a women without children is considered a bad omen. This rumination makes her neurotic even before the murder of the king.

Neurosis is an indication of mental conflict. Neurotic reactions are the commonest modes of faulty response to the stresses of life, and especially to those inner tensions that come about from confused and unsatisfactory relationship with other people whether they are a legacy from the past or from early childhood onwards, which remain to hinder future adaptions, or arise in the present in relation to hopes, ambitions, jealousies and so forth (Henderson and Batchelor, 1962 ; Rosen and Gregory, (1965).

A little bit of ambition is necessary to make success in life. Normally, the attribute ambition is considered as a sign of normality. But "extreme or great ambition" is an attribute of abnormality. What an individual desires or aspires could not be achieved in life, mental derangement is the result or product of it (Sarson, 1976). This has occured in the case of Lady Macbeth. She wishes to become a 'proud mother' and a 'proud queen of Scotland'. When she is denied both of these ambitions she became a neurotic. Neurotic reactions develop most commonly as faulty responses to the personal problems of day life. Stressful situations of a great many different kinds may precipitate a State of continuing anxiety and mental conflict, with the development of neurotic symptoms. These stresses elicit emotions of fear, guilt and hatred which have to be repressed, they are particularly likely to produce mental conflict and neurotic responses. For facing these stresses the individual may be weakened or wholly disabled. It is so in the case of Lady Macbeth.

Unconscious Mind : Lady Macbeth tries to push the insatiable greed of becoming the queen of Scotland, and the unpardonable sin of murder of Duncan from the conscious mind to the unconscious mind. The greater she tried to push those unwanted thoughts from the conscious to the unconscious mind, the more she become the neurotic. According to many Psychologists including Sigmund Freud the mind has three layers-conscious, preconscious and unconscious. Freud compared the mind to an 'iceberg'. The small part above the water level is termed the conscious mind, the part just below that is known as the preconscious mind and the deeper most layer is called the unconscious mind. What the individual is aware of is the conscious. What the indiv dual is not aware of but may become aware of at any time, is the preconscious. What the individual is not aware of without definite effort, in otherwords, what the individual is not at all or never aware of is the unconscious.

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Suppression and Repression

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Suppression and Repression are two important mental processes. Both are conscious rejection of an impulse. Suppressed ideas can be brought back to the conscious or the preconscious without much difficulty, or effort. Repression is a 'vehement effort' to prevent the mental process from coming into the conscious. As a result the repressed material remains in the unconscious mind. Repression is an act by which either a mental act is prevented from entering into the preconscious and forced back into the unconscious or a mental system which belongs to the preconscious is thrown in to the unconscious (Coleman, 1969). Lady Macbeth did not try to suppress the undesirable thought of murder, but she tried to repress those unwanted thoughts from her conscious to the unconscious mind.

Mental Energy : All mental processes are processes of mental energy economics in which some energy is accumulated, stored, blocked or discharged. What has been repressed tends to find outlets for discharge. Some forces whether conscious or unconscious prevent the discharge of energy. They are known as 'inhibiting forces'. They resist the discharge of repressed energy or blocked energy and the removel of tension. This process is known as 'resistance'. Resistance is nothing but a continuous process of repression. Lady Macbeth tried to remove the tension and stress which occured as a result of the heinous crime through the mental process called repression. Whenever she tried to remove the tension, the mental process called 'resistance' prevents her from removing the tension by discharging mental energy. So naturally she become a mental patient. When an internal or external stimulus acts upon the individual, causing a disequilibrium (perceived as a tension), the individual tries to bring back the equilibrium (Homeostatis or original balanced condition) by discharging the mental energy. In the case of Lady Macbeth 'resistance' hinders to bring back equilibrium. That is why she became a victim of mental illness called neurosis.

Somnambulism : Lady Macbeth suffers from neurotic reaction called 'Somnambulism (sleep walk) and obsessive compulsive reaction namely 'Washing Mania'. In somnambulism the patient suddenly wakes up from sleep and starts walking without knowing what he/she is doing. The patient has more or less complete amnesia (loss of memory) afterwords. But the lost memories may be called under hypnosis. 'Somnabulisms' are dissociated states and they begin during sleep. They are common in childhood, when their motivation often appears on the surface. For example, a boy much attached to his mother and antagonistic to his father, who treated him badly, in his somnabulisms would make for his parent's bed room and endeavour to get in at the side of the bedon which his mother slept. Here, Lady Macbeth in her 'Somnabulism' wakes up from sleep and walks unconsciously in order to kill the king of Scotland to satisfy her insatiable motive to become the Queen of Scotland. During somnabulism the patient commonly lives through a vivid experience, little or not at all related to his /her surroundings, and therefor hallucinatory.

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Obsession : Another mental illness which Lady Macbeth Suffers from was of obsessive compulsive neurotic type, called 'Washing mania'. The term "obsession or 'obsessional' means a preoccupied or hara sed or haunted mind. Schneider (1942) proposed the following definition of obsessions-"contents of consciousness, which, when they occur, are accompanied by the experience of subjective compulsion, and which cannot be gat ride, though on quiet reflection they are recognised as senseless". This defin.tion was later modified by Anbrey Lewis a clinical psychologist, who defined obsession as "a mental experience which is accompanied by a feeling of subjective compulsion, so that he does not willingly entertain it, but, on the contrary, does his ut most to get rid of it". The three esential elements of obsession are the feeling of subjective compulsion, the resistance to it and the retention of insight In an obsessional neuro is the patient's peace of mind is seriously disturbed by the obsessional symptoms and the patient's daily life is to a lesser or greater extent hindered and disrupted by these obsessional symptoms. The term obsessional neurosis includes both obsessive compulsive states. There is transition from obsessive rumination to obserssive compulsive act (Perry and Rosenham, 1968) In the case of Lady Macbeth, the horrified thought of murder gives way to the compulsive act of washing her hands too often.

Washing Mania : I they have to remove the trace of blood, Macbeth and Lady Macbeth think that they should wash their hands. Macbeth looks ruefully at his own bloody hands and remarks "they are an eye sore to me. They pluck out mine eyes" "will all great Neptunes' ocean wash this blood" ? The quilt feeling which was conscious, makes Macbeth a neurotic, suffering from Insomnia (sleeplessness). It is noteworthy that Lady Macbeth too is tortured by the blood guilt in her own way. In her soliloquy she cried pathetically, "Here's the smell of the blood still : all the perfumes of Arabia will not sweeten this little hand. Oh : oh, oh : " While Macbeth's imagination had been haunted by the colour of gore, (Macbeth utters in his soliloquy, "The multitudinous seas incarnadine, Making the green one red" and he could not wash off the stain of blood) Lady Macbeth is obsessed by its smell. The indicates that their obsessions are hallucinatory.

Hallucination : "Hallucination" are mental impressions of sensory vividness occurring without external stimulus (Shanmugam, 1981). tn hallucination the patient may feel or experience something which does not exist in reality. In auditory hallucination the patient may hear voices which do not exist in the real world. In hallucinations of taste, the patient may experience some taste and may fear that the food is poisoned. In hallucinations of touch the patient gets creeping sensations in the skin. Macbeth's visual hallucinations especiallly of the colour of blood are evident from his soliloquy, "No, this my hand will rather, The multitudinous seas incarnadine, Making the green one red". But Lady Macbeth has hallucination of smell of blood which is seen in her soliloquy

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"Here's the smell of the blood still: all the perfumes of Arabia will not sweeten this little hand. Oh : oh, oh :" These obsessive thoughts remained in her mind as a source of torment to her. She often felt that she was going insane and she is not fit to live. Her hallucinations of smell of blood disrupted her every day behaviour, and compelled her to wash her hands as of ten as fifty times a day. The performance of these compulsive act brought a feeling of satisfaction to her and the more she tried to restrain the compulsion the greater was the anxiety and tension she felt.

Substitution : In the case of obserssive compulsive neurotic there are substitutive thoughtsand activities. Here, Lady Macbeth, the obsessive compulsive neurotic, defends herself from anxiety by persistently thinking or doing something else each time threatening thoughts or impulses make their appearance. Lady Macbeth, by washing her hands might find the following substitutive thought continually persisting in her mind, "there is nothing to be afraid of. I am not quilty : It was may husband who did it not it". In this way she attemptsto allay, her underlying fear. In essence 'safe' obsessive thoughtsare substituted for more unpleasant or dangerous ones. Obsessive compulsive reactions represent more than avoidance by substitution. The individual may think or act in ways which are directly contradictory to his dangerous thoughts or impulses (Duke and Nourcki, 1979). Here, Lady Macbeth's obsessive ruminative thoughts about murder have no relation to her act of washing her hands more frequently.

Guilt Feeling Lady Macbeth's obessive compulsive reactions grew out of feelings of self-condemnation for ethically unacceptable desires and forbidden act. So she guilt and fears the possible punishment which God will give her for the unforgivable sin The resulting obsessive thoughts of her reveal considerable selfd-evaluation as well as symbolic attempts toward expiation and atonement. Lady Macbeth admits her sin and there is the symbolic expression of escape from sin by washing her hands too often.

washing one's hands show one' sinnocenee to others, just like pilate who washed his hands before the crowd who gathered to crucify Jesus Christ. The Bible says that pilate washed his hands saying. "I am innocent of the blood of this good man. The responsibility is yours". Similarly. Lady Macbeth washed her hands too often to prove her innocence and to put the responsibility of the heinous crime on her husband Macbeth.

A religious sanction is also attached to hand washing phenomenon. Pouring water signified purification of something. In baptism water is poured on the head of the individual. In marriage ceremony also the bride and bride groom pour water in their hands. All these denote purification from pollution. Lady Macbeth's hand washing. also indicates purification from the pollution of blood.

PSYCHOTIC

Neurosis can be cured. But in extreme conditons the obsessive neurotics may become 'Schizophrenics'. 'Schizophrenia' is a psychotic disorder. psychosis is a mantal disorder that interferes seriously with the usual functions of life. In psychotic disorders.

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the patient manifests a severe personality disorganization and decompensation with a marked distortion and loss of contact with reality (Korchin, 1986). The doctor who was treating Lady Macbeth exclaimed in his soliloquy, "This disease is beyond my practice". It is evident from the doctor's soliloquy that Lady Macbeth at last became a Schizophrenic because it is a disease difficult to be cured.

CONCLUSION

It can be concluded that the symptoms which Lady Macbeth shows are those which would be expected under the circumstances in the ploy in a person with a personality make up of Lady Macbeth and that therefore the charactersation of Lady Macbeth and the behaviour pathology which she develop are psychologically sound. Shakespeare appears to have intuitively perceived the psychological dynamics behind the symptoms shown by Lady Macbeth.

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Incidence of Smoking and its Relationship With Locus of Control Among Post-Graduate University Students

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INTRODUCTION

It seems unlikely that humanity at large will be able to dispense with "Artificial Paradise". Most men and women lead lives at the worst so painful and at the best so monotomous. That the urge to escape the longing to transcend themselves, if only for a few moments is and has always been one of their principal appetites. Many a time people use intoxicants. Use of cigarette has became a dominant cliche of modern life At the present time there are many people throughout the world who overuse cigarette at and other intoxicants. For many, the cigarette that is over-used is nicotine, socially accepted, normal ingradients of every day life in most communities. The substance is usually taken to provide some form of positive pleasure or to relleve stress, anxiety, depression or pain. That is to say, there is an unnatural drive towards the 'smoking' for a pleasure-seeking goal. Alternatively, it is a 'Psychological Dependence'.

Smoking is an old fashion in the west and is also prevailing in India. In a number of studies (Eysenck, 1963, Smith, 1987 and 1969, Lynn and Hays. 1969,) it has been reported that smoking is closely linked with certain personality dispositious of the smokers and thus the habitual smokers are not able to give up the habit of smoking easily.

People start smoking in order to experience that state of mind which would free them from worries, anxieties and frustrations and in course of time they become so used to them that they could be called addicts.

In modern society, consumption of cigarette at a rapid rate. The individuals specially adolescents are becoming more and more dependent upon smokiug, Smoking among students become a world wide phenomenon. To begin with was prevalent only Amongst the students of certain western couutries. The smoking problem today is characterised by the prevalence of so many adolescents who have enough time on their hands.

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The famous Lexicographer Samual Johnson defined cigarette as a 'stick with free at one end and a tool at the other'. Since time immemorial smoking tabacoo has been the most popular form of drug addicition. India has had 'bidi' very popular since ages. The above definition, though highly prejudicial has its relevance. Fectors that under lie a person's attitude towards smoking are health, habit, social personality and psychological motives.

Smoking is a type of intoxicant like drug, alcohole etc. It is a habit of special importance for psychologists. In the present study the investigator was concerned with the smoking behaviour among the internal snd external students of Post-graduate level. Moreover, the investigator wanted to know whether the students were influenced by internal forces or external forces. In means, whether the students were smoking cigarettes by their own interests or influenced by external variables *i.e.*, elders, friends, parents etc. It becomes very necessary to find the answer of these questions as to what are the correlates of smoking ? How do the boys and girls view smoking as a habit ? Do they favour it or not ? And, is there any relationship between smoking and locus of control ? Hence, to find out answers to these questions, the present study was undertaken with the following objectives and hypotheses :

Objectives 1. To study the incidence of smoking among Post-graduate study of Kurukshetra University.
2. To study the difference in locus of control of smoker and non-smoker boys.
3. To study the difference in locus of control of smoker and non-smoker girls.
4. To attempt a comparison of boys and girls on attitude towards smoking.
5. To attempt a comparison of boys and girls on locus of control.

Hypotheses 1. The post-graduate students have a positive attitude towards smoking.
2. There exist differences on locus of control between smoker and non-smoker boys.
3. There exist differences on locus of control between smoker and non-smoker girls.
4. The boys students have more favourable attitude towards smoking than the girls.
5. Significant differences exist between boys and girls on level of locus of control.
6. The incidence of smoking among the post-graduate boys and girls is very low.

DESIGN

Population and Sample : Purposively the Kurukshetra University was selected for the present study. A sample of 240 students randomly was selected by the investigator from all the faculties of the university students of both sexes.

Tools : (i) Rotter's Social Reaction Inventory (for locus of Control).
(ii) An Attitude Scale on Smoking (constructed by the investigator himself).

Statistics : Percentage Analysis, mean, S. D. and 't' test were calculated to fulfil the need of the study.

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Main Findings : 40 percent of boys were in the habit of smoking where as near about 11% of girls were found in the habit of smoking. More boys were daily smoking in comparison to girls; a large number of boys were sometimes than the girls, and never smoking girls were more than the boys.

It was also found that more percentage of boys were smoking 1 to 5, 6 to 10, 11 to 15 and 16 to above cigarettes on an aveaage per day in comparison to girls. Though there is no significance difference between smoker and non-smoker boys on the level of locus of control, there was high significant difference among smoker and non-smoker boys on the attitude towards smoking.

While discussing the mean scores of Locus of Control of the two groups (smoker and non-smoker), it was found that smoker boys were high in locus of control scores (more external) than the non-smoker boys.

On the other hand it was found from the mean scores of attitudes of the tow groups that the non-smoker boys had high and more positive attituds towards non-smoking than the smoker boys. Though there existed no significant difference between smoker and non-smoker girls on the level of Locus of Control, there were high significant differences smoker and non-smoker girls on the attitude scores.

While comparing the mean scores of the two groups (smoker and non-smokers), it was found that the smoker girls were a little higher on the level of locus of control than the non-smoker girls. It was found from the mean scores of the two groups (smoker and non-smoker girls) that the non-smoker girls had a more favourable attitude towards non-smoking.

There existed no significant difference between boys and girls on Locus of Control. There existed a high significant difference between boys and girls on attitude towards smoking.

Educational Implications : In the present study the investigator was concerned with the smoking behaviour among internal and external students. Though the findings revealed that there was no significant relationship between internal and external students in relation to their smoking behaviour is one of the serious problems which needs attention. So it is the duty of the teachers, parents and elders to create better environment or to provide good examples, so that the students instead of believing on external environment (fat, luck, chance etc.), they start believing in their own efforts. They should be made to belive that are themselves the maker of their own destiny. This may lead to the self actualisation and better prospects for achievement in their lives.

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Comparative Analysis of Birth Order and Self-Esteem Among University Athletes.

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One hundred and four university students (64 males & 40 females) was used as subjects to study the relationship between birth order and self-esteem among athletes. Adanijo and Oyefeso (1986) self-esteem scale were administered to the subjects. The data were analysed with the assistance of ANOVA and t-statistics. The findings of the study showed that, with the exception of first and second born females, there were significant differences between birth order and self esteem among the selected university athletes.

INTRODUCTION

Successful sports performance of any athlete is basically influenced by many variables such as personality differences and birth rank. Studies in ordinal position in the family is further investigated with a view to verifying two major theories, that is, psycho dynamic theories on personality and birth rank theories on the role of heredity and environment as they affect sports performance. In otherwords, personality differences have been attributed to achievement in various sporting activities. These differences are assumed to be influenced by both hereditary and environmental factors occurring during the socialization process.

Birth-order should be regarded as a variable which determines the kinds of environment and experiences an athlete passes through. Consequently, the ultimate goal is to find out the actual nature of the environment and those experiences which later lead to investigating athletes of different ordinal positions. Study on ordinal position has revealed that first borns have greater fear and anxiety in situations in which the threat of physical pain is perceived to be higb (Alberts & Landers 1977). Similary, Yusuff (1987) found first born college athletes to be more involved in sports of low risk unlike the secound borns. While the later borns were known to be high risk takers than the fast borns. However, weak and non-significant relationship was reported between birth-order and preferences for playing and watching risky sports among 320 secondary school students in Oyo State (Ogundari, 1985).

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Meanwhile, Coopersmith (1967) defined self-esteem as "The evaluation which the individual makes and customarily maintains with regard to himself. It expresses an attitude of approval or dissapproval and indicates the extent to which an individual believes himself to be capable, significant, successful and worthy. In short, self-esteem is a personal judgement of worthiness that is expressed in the attitudes the individual conveys to others by verbal reports and other expressive behaviour (P. 5)"

The above definition is very popular in the field of socio-psychology of sports. Self esteem is therefore known to be a core variable influencing motivation, persistence, standards of success and causal attributions for success and failure (Weiss 1988).

It should be noted that researchers in social psychology of sports have started drawing more attention to the issue of "self" as it affects performance, Different words have been used in social psychological literature such as self-concept, self worth, self-image, self-confidence and self-esteem and their relationship with motor performance. For instance- some texts in physical education and sports are of the view that mastery of skills as a result of enhanced self-esteem on the part of the performer (Kirchner, 1985; Morries & Stieh, 1985).

It is observed that self-concepts help in regulating behaviour. If we feel low in self-esteem we would be able to assess others less negatively and then interact with people of lesser attractiveness. Besides, we are likely to be more influenced by others. The way we behave influences the congnitive representation and appraisal of self. Getting people to change their behaviours can be led to a change in their self concepts (Pervin, 1978).

While analysing the major theories of self, Cooley (1902/1956) stated the major role that social interactions play in the development of self. He viewed the role of important others in self-esteem development as a social mirror. Similarly, Mead (1934) opined that the child observes significant others and takes the attitude that others put toward him or her. It was further highlighted that play and games serve as contributing factors in the measurement of self-esteem as children become involved in role playing.

Moreover, individuals's collection of self-referent concept might be a product of perceived experiences related to the satisfaction of needs for feelings of contentment an acceptance. In otherwords, an individual tries to protect one's self-ideas and feelings of adequacy and self-worth (Combs & Snygs 1959).

Watkins & Astilla (1980) investigated a group of 11 to 13 years old fillpino girls from large sibships where they reported that the self-esteem scores of first borns were higher than the subjects of other ranks. Also, it was found that first born females rated themselves higher than later borns when they were given a rating scale of four personality traits, although it was contray among the males (Schwab & Lundgren 1978). On the otherhand, in a pictorial self-esteem scale presented to a small group of Kindergarteen children, it was discovered that there was no association with birth rank (Irvin, 1974). Besides, mothers, mothers opined no significant relationship between self-concept and birth order as stated by Irvin (1974).

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In view of the above findings, there is no clear cut fact supporting the assumption that first borns have lower self-esteem that other birth ranks. Some studies do not show any significant association of self-esteem with birth rank (Irvin 1974; Purpura 1971). While those that find differences show higher self-esteem among first children which might indicate that first born athletes are likely to be easily motivated and thereby have high level of aspiration and greater achievement when compared to other borns (Schwab & Lundgren 1978; Sears 1970; Watkins & Astilla 1980).

Purpose : The purpose of this study is to investigate the relationship between birth order and self-esteem among the university athletes. Based on this objective, the hypotheses were advanced :

(i) There would be no significant relationship between birth-order and self-esteem of the athletes among males.

(ii) There would be no significant relationship between birth-order and self-esteem of the athletes among females.

METHOD

A total of 104 university athletes (64 males, 40 females) were selected on a random basis from students participating in 1988 Nigerian University Gemes (NUGA) held in Portharcourt. Majority of the subjecte participated in track and field events, while others came from handball, basketball, juda, volleybail and soccer. The instrument used in collectiny the data was a questionnaire which included Adanijo & Oyefeso (1986) self-scale. This scale was found to have reliability measurement of 0·74. The questionnaire also sought the respondents' ordinal position in the family.

The data were statistically analysed with the assistance of simple analysis of variance (ANOUA) and t-test at 0·07 level of sig ificance.

RESULTS AND DISCUSSION

Table-1 : Result of Analysis of Variance in Self-Esteem Scores of Male Subjects by Their Birth-Order.

Birth Rank	N	X	SD	EX	EX
First Born	16	47·38	5·31	758	36362
Second Born	12	31·33	8·08	376	12554
Later Born	28	39·36	6·78	1102	44678
Last Born	8	54·75	5·12	406	20814

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Source of Variance	Sum of Squares	df	Mean of Squares	F	P
Between	2602·59	3	867·53	18·93*	0·05
Within	2750·35	60	45·84		
Total	5352·94	63			

* Significant at 0·05 level.

Table-2 : Result of Analysis of Variance in Self-Esteem Scores of Female Subjects by Their Birth-Order.

Birth Rank	N	X	SD	EX	EX^2
First Born	10	40·60	6·89	406	16958
Second Born	18	40·11	8·99	722	30414
Later Born	4	50·50	8·50	202	10490
Last Born	8	34·50	7·76	276	10004

Source of Variance	Sum of Squares	df	Mean of Squares	F	P
Between	685·92	3	228·64	3·05*	0·05
Within	2699·18	36	74·98		
Total	3385·10	39			

* Significant at 0·05 level.

Table-3 : t-Test Comparisons of Self-Esteem Scores of the Athletes by Their Birth-Order.

MALE ATHELETES

	First Born	Second Born	Later Born	Last Born
First Born	—	6·42*	14·58*	6·88*
Second Born	—	—	19·12*	24·28*
Later Born	—	—	—	24·76
Last Born	—	—	—	—

Contd.

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FEMALE ATHLETES

	First Born	Second Born	Later Born	Last Born
First Born	—	0·72**	7·28*	4·04*
Second Born	—	—	8·96*	7·38*
Later Born	—	—	—	9·36*
Last Born	—	—	—	—

* Significant at 0·05 level.

** Not Significant at 0·05 level.

RESULTS AND DISCUSSION

The descriptive statistics of self-esteem scores among the male athletes by their ordinal position in the family is presented on Table 1. The table (Table 1) indicated that the last borns had higher mean score in the self-esteem rating while the second born was unexpectedly ; low (31·33). The ANOVA proved that there was a significant difference between birth order and self-rating scores among the male university athletes (f=18·93 ; P 0·05). In determining the significance of differences between self-esteem scores at different birth ranks among the male subjects, t-test comparisons were shown in Table 3. As seen in Table 3, there were significant differences among the males when comparing their self esteem scores at birth rank to other ordinal positions. It can therefore be inferred that ordinal position in the family might affect the level of self-esteem among the male athletes which consquently affect level of motivation and achievement in sports competition.

Also, ANOVA of self-esteem scores of female athletes by their birth order is seen on Table 2. Unlike, their male counterparts, later born females were having the highest mean score (50·5) under self-esteem rating, followed by first borns (40·6). second borns (40·11) and the last borns having the least mean score of self-esteem rating (34·5) as seen from Table 2.

With the help of f-ratio, a low significant difference was reported between ordinal position in the family and self-esteem rating of the female subjects (F=3·05 ; P 0·05). The differences between various birth ranks when compared in pairs among the female. The differences between various birth ranks when compared in pairs among the female respondents is shown in Table 3. Various pairs of birth ranks observed significant differences between ordinal position and self-esteem rating by the female athletes (See Table 3.) Interestingly, there was no significant difference between first and second borns when their self esteem scores of the female respondents were paired (t=0·72, df=26, P 0·05). It might be suggested from this finding there is little or no difference between the social interactions of important others on first and second borns females which invariably affect their level of self concept. In otherwords, both birth ranks are influenced in a like manner by significant others unlike the other borns. Hence, they are likely to have similar level of motivation and achievement in motor performance.

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The results reported that there were significant differences between ordinal positions in the family and self-esteem scores of the respondents irrespective of their sex. However, no significant difference could be determined between first and second born females. These findings are at variance with the observation of Rosenberg (1965) who stated in his study on self-esteem among high school students in New York public schools that first borns did not differ from later borns. Mothers, in addition, opined no significant relationship between self-concept and birth order (Irvin, 1974). The study also is not in support of Pevin's (1978) findings that women tend to develop a negative self-evaluation concerning their chances of success in many performance situations. However, this investigation is in line with Sears, (970) and Watkins & Astilla (1980) who observed a strong association between self-concept and birth-order.

Meanwhile no significant difference was found out between birth order and self-esteem on the basis of sex in the study. This is further buttressed when it was recommended that societies have option of minimizing, rather than maximizing, sex-differences through their socialization process. Social institution and social practices are not merely reflections of the biologically inevitable. A variety of social institutions are viable within the framework set by biology. It is then left for human beings to choose those that improve the life styles they mostly recognised (Maccoby & Jacklin, 1974).

CONCLUSION

Self-esteem originates from social interactions but ordinal position in the family might interfere with these social interactions. Therefore, sports practitions should draw more attention to this area of investigation so that sport excellence can easily be achieved by Nigerian athletes especially when competing at International level. Development of self-esteem among the athletes should be part of the instructional package which consequently enhance motivation and achievement of the athletes.

Furthermore, sports practitioners must be aware that information about birth order and self-esteem of athletes is necessary in view of the fact that they are expected to develop their own observation skills in physical settings. Barret (1983) has noted that the ability to observe behaviours and performance in a physical setting is critical in order for instructors to give appropriate contingent, skill-relevant feedback.

It must also be noted that athletes who are low in self-esteem behave differently in learning situation and are more sensitive to certain sources of information than others. A low self-esteem athletes is said to have the following characteristics such as avoiding activities, giving up easily when trying to learn new skills, exerting minimal effort in games and activities, setting unrealistic performance standards (too low or too high). attributing success to luck and failure to lack of ability and adopting strategies to avoid failure (Weiss, 1988).

Within the context of awareness of the difficulties of the research, it is hereby concluded that with the exception of first and second born females, there were significant differences between birth order and self-esteem among the selected university athletes.

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Self-Esteem and Family Type as Predictors of Affiliativeness Among Nigerian Adolescents

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The influence of self-esteem and family type on affiliativeness in 15 Nigerian adolescents (Mean age 17·8 years) are examined. Affiliativeness (or social isolation) is specified as an index of maledjustment A 2×2 ANOVA reveals that adolescents with high self-esteem are more affiliative than those with low self esteem, and that adolescents from monogamous families are more affiliative than those from polygynous families.

The results highlight the need to expose adolescents early to social skills training, assertiveness training and leadership roles. The school is suggested as an appropriate medium for such intervention.

INTRODUCTION

Adolescence is a critical period of human development since it marks the transition from child-hood to adulthood. As a result, an adolescent has been described as an "emotionally and highly volatile egocentric person who is poorly in touch with reality and is incapable of self criticism" (Horrocks, 1976). Adolescence is also described as a period when an individual learns personal and social roles most likely to fill his self-esteem. The adolescent seeks to establish a true sense of individual identity, and to find meaning for high own existence (Horrocks, 1976).

Because of the critical nature of adolescence, resolution, or otherwise, of its problems, may have long-term effects on the adolescent's level of adjustment. An index of maladjustment in adolescence is the degree of social isolation or affiliativeness. Affiliativeness, for long, has been shown to relate significantly with anxiety. (e. g. Schachter, 1959). A positive relationship has been observed between anxiety and affiliativeness, with people who are isolated (or less affilivative) expressing a higher level of anxiety than those more affiliative (Schachter, 1959).

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Many predictor variables have been implicated in the determination of affiliativeness during adolescence. However, two of suchvariables were considered in this paper These were self esteem and family type.

Self-esteem, which can simply be described as ons's evaluation of self or attitude towards self, has been identified as an important determinant of adolescents' psychological adjustment, including affiliateveness. For instance, it has been established that, relative to high self-esteem individuals, low self-esteem individuals are more likely to suffer from a variety of emotional and behavioural problems such as anxiety and isolation (Coopersmith, 1967). Low self-esteem adolescents have also been characterized by a sense of incompetence in social relationships, pre-occupation with self, and social isolation (Rosenberg, 1965). Thus adolescents with low Self-esteem tend to reject offers of friendliness, continue to be hostile and distrustful, and resist change. They are individuals with minimum value for affiliativeness.

In African societies, two types of family readily emerge. These are the monogamous and the polygynous families. A monogamous family is made up of one husband, his wife, and children, while a polygynous family consists of one husband, two or more wives, and their children. The two types exist side by side. The former type is commonly practised by educated elites, while the latter type is prevalent among the more traditional population. Several characteristics have been associated with the different types. However, one characteristic that clearly differentiates between monogamous and polygynous families is family size. Polygynous families are generally larger in size than monogamous families. In fact, the concept of extended family in traditional African sccieties has its origin in the polygynous family model.

Another difference between the two types of families is parental authority. Where as, authority in monogamous families is centralised, with the father as the dominant figure, authority in polygynous families is decentralished. Each mother has the responsivility of caring for her siblings, with minimal interference from the father. As a result, sibling rivalry, in which siblings of the same matronage isolate themselves from other siblings, or attempt to outperfrom others in acquisition of skills, is rife. This tendency to segregate, therefore, promotes suspicion and competition, rather than cooperation amongst siblings. This uncooperativeness is accentuated if there is disharmony among co-wives.

On the other hand, it has been observed that adolescents reared in small monogamous through parental love and attention, are more active, socially assertive, friendly creative. and less hostile towards others (Conger, 1977).

From the foregoing, two hypotheses were tested in this study. These were :

1. That adolescents with high self-esteem would be more affiliative than those with low self-esteem.
2. That adolescents from monogamous families would be more affiliative than those from polygynous families.

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METHOD

Subjects : Subjects were 151 from five pupils of randomly selected secondary schools in Ibadan, the capital city of Oyo State Nigeria. The mean age of the sample was 17.8 years (S. D.=3.45). A multi-stage sampling procedure was adopted to allow for adequate representation of the four categories of subjects-high self-esteem monogamous, high self-esteem polygynous-low self esteem 84 females and 70 Males in all monogamous, and low self-esteem polygynous groups there were <.

Instruments and Design : The instruments used in this study were the Adanijo and Oyefeso's (1986) Self-Esteem Scale (SES), and Edward's (1953) personal preference Schedule (EPPS) (Need for Affiliation Scale), modified and shortened by the main author. The SES is a 15-item self-report questionaire developed in Nigeria. It has a Likert-type response format with the following response choices : 1=Strongly Disagree, 2=Disagree 3=Undecided, 4=Agree, and 5=Strongly Agree. The authors have reported a splithaft reliability of 0·79 (<·0001, N=420) among bank officials, and stability coefficients of 0·74 (p<.0001, N=250), and 0·92 (p∠.0001, N=250 among undergraduates and high school students respectively.

Sample items on the SES include the following :

Item 1 : "My effort always produce poor results".

Item 8 : "I think I'm confident enough to speak in front of a group".

Item 14 : "I live too much by other people's standards".

The shortoned version of the EPPS Need for Affiliation Scale is an 8-item Likert-type questionnaire with the same response format as the SES. The main author has obtained the following psychometric values for this shortened version from a sample of undergraduates :

Stability coefficient of 0 47 (p∠.001, N=114), coefficient of internal consistency of 0 80 (p∠.001 N=125) and a convergent validity coefficient of 0·53 p <.001 N=138, with subjects' self rating as criterion. The authors have obtained a split-half reliability coefficient of 0·73 (N=83, p<·201) among secondary school students. Sample items on the modified Need for Affiliation Scale include the following :

Item 1 : "I like to be loyal to my friends".

Item 5 : "I like to do things with my friends rather than by myself",

Item 6 : "I like to form new friendships".

A 2×2 factorial design was employed to investigate how self-esteem and family type/predict affiliativeness. Self-esteem was operationally defined as subjects' scores on the SES. Family type was defined in terms of subjects' membership of either a monogamous or polygynous family, and affiliativeness was the subjects' scores on the modified Need for Affiliation Scale. Classification of subjects in to high-and low self-esteem groups was determined using the sample mean as cut-off. Subjects who scored below the

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the means were classified as low self-esteem subjects, while those who scored mean and above belonged to the high self-esteem group. Mean self-esteem score for this sample was 46·30 (S. D.=6·9).

RESULTS

Data obtained from the subjects were analysed using the 2×2 analysis of variance (ANOVA).

The first hypothesis which stated that adolescents with high self-esteem would be more affiliative than those with low self-esteem was confirmed ($F_{1,148}=10·75$, $p<·001$. Difference in mean scores on affiliativeness between high-and low self-esteeem groups $=6·90$, $p<·05$). (See Table 1 and 2 below).

Table-1 : 2×2 ANOVA Summary Table Showing the effects of Self-esteem and Family Type on Adolescents' Affiliativeness.

Source	SS	df	MS	F
Column (Self-Esteem)	1598·43	1	1598·43	10·75***
Row (Family Type)	2107·11	1	2107·11	14·18***
Interaction (Self-Esteem×Family Type)	426·76	1	426·76	2·87
Error	21998·04	148	148·64	—
Total	26130·34	151	—	—

***p <.001

Table-2 : Scheffe's Test of Mean Comparisons of Affiliativeness Score between Adolescents from Monogamous and Polygynous Families and adolescents with low-and high Self-Esteem.

Compared Groups	Mean Difference	Scheffe's Critical value
High-vs Low Self-Esteem	7·45*	6·86
Monogamous-vs Polygynous background	6·90*	6·73

*p<.05

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The second hypothesis which predicted that adolescents from monogamous families would be more affiliative than those from polygynous families was confirmed ($F1.148 = 14.18$, $p < .001$' Difference in mean scores on affiliativeness between subjects from monogamous families and those from polygynous families $= 7.45$, $p < .05$) (See Tables 1 and2).

DISCUSSION AND CONCLUSION

The finding that adolescents with high self-esteem are more affiliative than those with low self-esteem has support in the findings of earlier researches (e.g., Coopersmith, 1967' Rosenberg, 1965' Our finding confirms their observations that expression or high self-esteem is a good predictor of psychological adjustment as expressed in affiliativeness since adolescents with low self esteem have been observed to suffer more from anxiety and social isolation, than their high self-esteem counterparts. A closer look at some items on the SES would clarify the reason for the low affilia-tiveness expressed by low self-esteem adolescents. For instance, item 6, "I feel inferior to some of my friends", and Item 12, "I don't believe much in my ability" reveal those aspects of self-esteem that describe worthlessness. A worthless individual, rather than expose himself would prefer to isolate himself for fear of being discovered as being worthless by others The resultant social isolation or low affiliativeness would further create anxiety (e. g. Schachter, 1959) and greater malajustment. One interesting implication of this finding is the seemingly culture-free influence of self-esteem on adolescents', affiliativeness and of course, adjustment. The result of this study compares favourably with those obtained in western cultures.

There is therefore the need for evolving intervention strategies that are geared toward enhancing the self-esteem of adolescents, especially in schools. Such strategies should involve role-playing, exposure of adolescents early to leadership roles and relevant role models. Secondly, adolescents should be assessed objectively in order to help them discover early their aptitudes, interests and abilities. Such discoveries should be followed by an exposure of these adolescents to experiences that would further enhance these qualities. By so doing, the feelings of worthlessness, lack of confidence, inadequacy, and incompetence which characterise low self-esteem (Adanijo and Oyefeso, 1986), would be drastically controlled. The outcome of this, it is hoped, would be well-adjusted adolescents, rather than conflict-ridden and socially-isolated adolescents.

Our finding that adolescents from monogamous families are more affiliative than those from polygynous families derives support from Conger's (.977) finding. He attributed this observation to the promotion of cooperativeness among siblings of monogamous families which is enhanced by the presence of parental love and attention. The lower affiliativeness expressed by adolescents of polygynous families could also be explained in terms of sibling rivalry and disharmony among co-wives which characterise such families. Rather than mix with others, siblings of polygynous families are likely to

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generalize the competitiveness and suspicion characteristic of such families to other social situations. Such siblings then prefer to so isolated rather than affiliative. Thus they are likely to be less adjusted than their monogamous counterparts.

Again, there is need for meaningful intervention. Adolescents of polygynous background can then be regarded as a risk-group that needs help. Help may be in from of re-education. Re-educative intervention should teach teachniques of suspicion-and tension reducti n. It could also incorporate the teaching of social assertiveness skills to this group of adolescents. The goal is to change the orientation of this risk-group such that they can perfrom optimally in social situations without suspicion of and hostility toward others. The outcome is likely to be a group of well-adjusted adolescents. Of course, the most appropriate medium of re-education would be the school.

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Scholastic Achievements of the 5th Graders

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INTRODUCTION

Not long ago, 4179 boys and girls studying in the 5th class of cultural primary school complex, selected from each of the three blocks of all the twelve districts of the Punjab, when they had finished their courses and were ready for the Board Examination' were given a specially constructed achievement test which consisted of two question papers each of the duration of an hour and a half. The question papers were prepared keeping in view the prescribed syallbi and the mental development of children of 11+age grou p The question papers consisted of essay type, short answer form and objetive type test items. The answer books were got evaluated from experienced teacher educators and scoring obejectivity was statistically established.

Students obtaining a minimum of 33% marks were declared as passed and those obtaining 60% or more were categorised as first divisions. The results of this experiment are presented below in Table A and Table B.

Table-A : (Total Result).

Subject	Pass %	Fail %	Ist Division %	Average score %
Punjabi	9·03	81·07	0·74	20·5
Hindi	12·67	87·33	1·24	10·0
Social Studies	29·00	71·00	2·20	20·8
Arithmetic	33·84	66·16	8·02	26·7
Science	39·62	60·48	5·38	29·7
Total	24·8	75·2	3·5	21·5

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Table-B : (District-wise Results)

District	Punjabi			Hindi			Soc. Std.			Arith.			Science			Total
	Ist Div.	Pass	Fail	Its Div.	Pass	Fail	Ist Div.	Pass	Fail	Ist Div.	Pass	Fail	Ist Div.	Pass	Fail	
Amritsar	1·53	25·6	74·4	0·2	11·6	88·03	9·6	67·4	32·5	22·2	63·7	36·3	16·4	65·6	34·3	46·8
Bathinda	0·4	8·4	91·5	0·38	2·6	97·3	0·38	21·8	78·1	7·3	33·2	66·8	3·8	40·3	59·6	21·2
Faridkot	0·62	20·0	79·9	1·45	18·9	82·0	0·62	4·3	95·6	8 6	45·9	45·1	5·1	50·1	49·5	27·8
Ferozepur	0·0	10·6	89·4	0·0	1·5	98·4	0·0	13·7	86·2	3·8	25·4	74 5	1·5	33 5	66·5	16·8
Gurdaspur	0·61	22·6	77·3	5·83	19·6	80·3	3·66	50·0	49·9	13·1	56·3	43·6	1·2	53·5	46 4	40·4
Hoshiarpur	0·0	10·9	89·0	0·28	7·5	92·4	3·9	51·5	48·4	6 4	39·5	60·5	1·1	45·1	51·9	30·9
Jalandhar	1·56	31·0	61·8	1·56	20·3	79·6	2·0	33·3	66·6	14·4	41·2	58·8	1·47	53·6	46·3	35·8
Kapurthala	0·0	9·51	90·4	1·06	10·9	89·0	0·7	17·5	82·4	12·4	28·6	73·3	7·4	31·6	68·3	19·3
Ludhiana	0·34	23·5	76·4	0·68	11·1	88·8	1·02	28·0	71·9	3·7	29·6	70·3	4·7	30·6	69·3	24·5
Patiala	0·0	13·8	86·1	·90	9·7	90·4	0·90	18 0	81·9	0·0	5·11	94·8	0·6	18·9	81 0	13·00
Sangrur	2·35	32·0	67·9	1·46	26·1	73·8	0·0	20·0	80·0	3·21	29·7	70·2	5·5	40·5	59·4	29·0
Rupar	0·6	6·9	93·1	0·6	3·6	96·3	0·3	9·6	9·4	0·0	9·5	90·4	1·2	10·1	88·2	7·9
Total	·66	18·9	81·1	1·05	12·7	87·3	1·9	29·0	71·0	7·9	33·8	66·16	5·3	39·6	60·4	24·8

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These tables put forth very horoiule and sorrowful results. 8.% students in Punjabi, 87% in Hindi, 71% in Social studies, 66% in Arithmetic, and 60% in science fail to get even 33% marks. Only 24.8% of 4179 students get a pass. Average marks obtained by the students do not go beyond 21.5%. Only 3·5% students get a score beyond 60%. Hindi and Punjabi are the hardest hit subjects where in failure rates are 87% and 81% r·spectively. The study revealed that quite a large number of students obtained a zero socre in different subjects.

Strangely, different districts have put forth very deviating results. Ropar and Patiala are at the bottom, Amritsar and Gurdaspur are at the top, others are evenly sandwiched, Hoshiarpur, Jalandhar and Sangrur stand in the middle of the continum. Amritsar is six times more academic than Rupar and nearly three times brighter than Patiala and Ferozepur and Kapurthala and achieves thrice as other districts of the Punjab.

There may be mady reasons for such imbalances and they have to be investigated into. But primary school teachers belong to district cadre, good or bad, they will stick to the district they belong to and given the same teachers and the same mode of their teaching, the districts are not likely to improve.

If the results of the experiment are reliable (there is no reason to think differently), the Education Department Punjab and the Board of School Education have to take immediate steps to improve the situation obtaining in primary schools before it is too late to do something effective. Weak foundations can never withst and higher storeys in the educational structure. High school teachers are fairly justified to allege that the product of primary schools is not fit to be granted admissions to secondary schools, and parents have reasons to say that not much teaching is done in primary schools.

This experiment made by the Board violently contradicts the nearly 100% pass percentage shown in the 5th class annual examined conducted by the Board itself. Apparently. the 5th class annual examination has been a farce. Rather than to improve it, the Board has decided to stop it. In any case, the situation calls of serious attention and revamping.

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Moral Judgement as Related to Intelligence in Socially Deprived and Non Deprived Children

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A sample consisting of 80 Ss all boys from deprived and non-deprived sections were administered a PDS to delineate the deprived and the non-deprived. These subjects were then administered MJ test and SPM to study the relationship of moral judgement and intelligence in socially deprived and non-deprived subjects.

Results showed significant relation between moral judgement, intelligence to social deprivation. Socially deprived children were low on moral judgement and intelligence scores as compared to their non-deprived counterparts. The presence of such differences were attributed to the various social factors existing which make the environment of the advantaged child more enriching and conducive to learning as compared to disadvantaged child.

INTRODUCTION

The term moral according to Graham (1972) may be used in three senses : (i) It may be used to refer to resistance to temptation or the inhibiting of behaviour which is regarded as wrong though perhaps pleasurable or profitable. However, one may refrain from socially disapproved action because one is afraid of the consequences ; (ii) It may refer to the control of behaviour by references to internalised standard rather than reference to the possible consequences of the behaviour for the actor ; (iii) It may indicate behaviour which is carried out by references to rules or principles which are rationally accepted in the sence that reasons for accepting them are understood and felt to be legitimate. Thus to be capable of high level of morality one must have sufficient intellectual capacity to understand the nature of moral rules or principles, and the capacity to analyse problems and dilemmas in terms of these rules or principles, and decide how they should properly be applied.

Kohlberg (1964) in his analysis of moral development, has emphasized that the ability to control to inhibit, develops with age and is related in some ways to the child's cognitive development. The ability to control one's own behaviour requires some ability to anticipate what will happen in future. The ability to focus attention for periods

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of time may also enter in. The ability to focus attention increases with age. Kohlberg (1964) further found out that level of moral judgement correlates moderately with the child's measured intelligence. Children with high IQ scores tend to be more advanced in the sequence than are children of the same age with lower IQ scores. Such a correlation underlines the relationship between child's cognitive development and development of moral judgement. Therefore intelligence can be considered as a significant variable for the development of moral judgement in children.

When children are classified according to social background i. e. social deprivation, it is sound that both groups (honest and dishonest) become more consistent in moral behaviour, as they get older, but the children form higher socio-economic level i. e. socially benefitted, become, more honest, while the children who are socially deprived, tend to become more dishonest with age (Hartshorne, 1930). Therefore, the social background of the child can be expected to be a significant factor in the development of moral judgement in children.

Deprivation has been equated with 'failure to provide opportunities to have experience' (Gordon, 1965) ; deficiencies in experiences and conditions of learning (Misra and Tripathi, 1977) ; 'insufficient satisfaction of basic psychological needs' (Keith and Craft, 1968); and a condition in which particular external and internal factors merge to narrow a persons behaviour or alternatives for achieving self fulfiiment (Sinha, 1977).

Morality is not something which is practised in isolation, nor is it a question of a mechanical working out the equalitarian equation of the greatest good for the greatest number. Morality is, among other an aspect of our relationship with other people, to develop the right kind of morals, the person needs the right kind of environment (Hartshorne, 1930).

The nature of environment provides the necessary sensory inputs, stimulation and experiential base for the development of perceptional skills of various kinds. The enduring environment of the child or his ecology may be concurred in terms of two layers. The upper and the more visible layer contains home, school, peer and the surrounding or the supporting layer embedding the former is provided by geographic-physical environment and the institutional setting of the child in terms of his social class, caste and amenities available to him, (Sinha, 1977). These environmental factors play a significant role in the development of moral values.

According to Hartshorne (1930) in deprived children habits of dishonesty increases with age and in socially benefitted children dishonesty decreases with age, thus emphasizing the role of the social group in development of moral behaviour in children.

Thus from all these studies and views given by various psychologists, we can expect the ability of moral judgement in children to be effected by their intellectual capacity and the experience available to the child in his social milieu.

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AIMS AND HYPOTHESES

Aims : The objectives of the present investigation are to study the effect of prolonged social deprivation and intelligence upon the moral judgement of children. It is a basic assumtion of the study that lower levels of intelligence and moral judgement are attributed to continuous interactions between individual and the situation they encounter. These environments have been categorised as prolonged social deprivation in the social environment of the children. It has been seen that families from different social backgrounds construct divergent environments which affect the intelligence and level of moral reasoning in children.

The study shall further explore the possibility that the difference in intelligence and levels of moral judgement, between children from socially deprived and non-deprived background, may be due to a set of behaviours that constitute a culturally defined unstimulating environment. It has been found that delinquency (Newmeyer, 1961) is more prevalent in lower social class as it arises in the matrix of socio-personal disorganisation and in the sequence of experiences, and influence the shape of the behavioral problems.

Further possibilities showed that children from higher status i.e. socially benefitted have, an interwoven complex of advantages over those from deprived. Their greater security, both economically and socially gives them freedom from temptations that beset less fortunate children but the child from deprived environment is tempted to steel what he needs, has to be punitive in his judgements, seeks to compensate by cheating for the mental disadvantages he so often suffers, and in a way acquires immoral behaviour.

In the light of the aspects considered above, it would be a matter of interest and research, relevance, therefore to investigate and study various social and genetic factore affecting the development of moral judgement in children.

Hypotheses : Socially non-deprived subjects will score high on moral judgement test as compared to the socially deprived subjects.

High intelligence scores will be positevely related to high scores on moral judgement and low intelligence scores with low scores on moral judgement.

Socially non-deprived subjects will score higher on intelligence tests as compared to their deprived counterparts.

Socially deprived children will be low on intelligence and low on moral judgement as compared to the non-deprived children who will be high on intelligence and moral judgement.

METHODOLOGY

Design : The study was conducted in two phases. In the first phase children from Government Schools were administered the Prolonged Deprivation Scale (Mishra and Tripathi, 1977). This scale delineated the socially non-deprived subjects (Ss) from the socially deprived Ss.

The second phase of the study consisted of administering the Moral Judgement test, (Verma and Sinha, 1971) and Standard Progressive Matrices (Raven, 1977), to test the level of moral judgement and intelligence in these Ss.

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Sample : The sample consisted of 168 Ss, all boys of 9-10 years of age. The Ss selected were from various Government Schools in Chandigarh. The criteria for sample selection was the Ss' s age, social background and sex.

First phase of the study : The first phase consisted of the administration of the prolonged deprivation scale to select the final sample of deprived and non-deprived Ss. The test was administered to 168 Ss with different social background. The test was administered in the respective schools within a group of 35 Ss.

The obtained data was tabulated and final selection was carried out. Average mean value was calculated (214) and with the calculation of standard deviation SD (34), the sample was delineated into deprived and non-deprived section by taking $\pm$ mean 1/2 standard deviation (17). Thus the final sample consisted of 80 Ss with 40 deprived and 40 non-deprived.

Second Phase of the Study

1. *Moral Judgement Test* (*Verma & Sinha*, 1971) : The test consists of a number of items on which the child has to take moral decisions, grous moral contexts in the statement. work out the relationship between words with moral connotations, evaluate a given piece of action, use logical reasoning in moral problems and select the appropriate answer.

The test has been divided into 6 parts :

1. *Discrimination* : One alternative for each item has to be selected and tick marked.

2. *Incomplete Sentences* : Ss have to select one alternative to complete the sentence.

3. *Analogies* : In it the subject has to find the relationship of the given item and mark in the bracket.

4. *Best Moral Answers* : Short question based on the incident narrated have to be answered.

5. *Moral Reasoning* : Subjects are required to have logic reasoning for selecting correct answers in the form of problems.

6. *Definition* : Definition of a given moral values is to be given.

There is only one correct answer of each item. The total items included are 50. For scoring, each correct answer is to be assigned score of one and incorrect answers a score of zero. The score obtained by the subject would be the index of their moral judgement.

2. *Standard Progressive Matrices* (*Ravens*, 1977) : The scale consists of 60 problems divided into five sets of twelve problems each. A person's total score provides an index of his intellectual capacity, with relatively little influence from the cultural environment in which the individual grows up or his education.

Data Collection : The Moral Judgement test and Standard Progressive Matrices were administered to a group of ten children each. The test was carried out in a separate room, to avoid disturbance. Question and answer sheet for both the tests were

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distoibuted and for MJ test each question was spoken out and meaning was made clear. The Ss were not told the purpose of the test instead Ss were told that they were required to give replies for certain simple questions and their capacity for answering question was judged.

Therefore, each scoring sheet consisted of a total score on PDS, MJ test and SPM which was prepared for further analysis.

RESULTS

This section focuses on moral judgement and intelligence scores of Ss and the relation of these scores with social deprivation.

After calculation of raw scores mean, standard deviation, t-ratio and coefficient of correlation were calculated. These were used for the present investigation to see the significant impact of social deprivation and intelligence on moral judgement abilities in children.

Table-I : Mean, SD, t-ratios for Moral Judgement and Intelligence in Deprived and Non-deprived Subjects.

Sr. No.	Variable	Non-deprived Mean	SD	SE_M	Deprived Mean	SD	SE_M	t-ratio
I	Moral Judgement	40·5	4·80	·75	20·2	7·48	1·18	14·50**
II	Intelligence	32	10·32	1·6	17	6·87	1·08	8·10**

** p < ·01

By calculation of t-ratios it is clear from Table I that the difference between means for the deprived and non-deprived is highly significant. Thus indicating that socially deprived subjects are significantly low in moral judgement and intelligence as compared to the non-deprived subjects.

In moral judgement test means were calculated for the six different parts individually to see the difference of attempt by deprived and non-deprived Ss in different set of questions as show in Table II.

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Table-II : Calculated Values of Mean, SD and t-ratios on Moral Judgement Test.

Sr. No.	Variable	Non-deprived Mean	SD	SE_M	Deprived Mean	SD	SE_M	t-ratio
I	Discrimination	8	1·31	·21	4·5	2·2	·34	8·64**
II	Incomplete sentences	7·5	1·25	·19	4·7	2·31	·36	6·77**
III	Analogies	6·8	1·58	·25	4·6	2·00	·32	5·46**
IV	Best moral answers	6·4	1·35	·21	4·6	2·18	·34	4·57**
V	Moral reasoning	4·8	1·18	·19	3·7	1·50	·23	3·76**
VI	Definition	6·1	1·56	·23	3·9	1·80	·28	5·95**

** p⁄·01

The above table shows that difference between means in each part of the moral judgement test in deprived and non-deprived is statistically significant at ·01 level.

Pearson Product Moment Coefficient of Correlation (*r*) : In order to see the relation of moral judgement and intelligence in deprived and non-deprived, Pearsons Product Moment Coefficient of Crrelation was calculated for children and level of significance was found as shown in Table III.

Table-III : Calculated Values of 'r' for Moral Judgement and Intelligence in Deprived and Non-deprived Subjects.

Sr. No.	Variables	Value of 'r'	Level of Significance
1.	Moral judgement and Deprivation	—·307	·05*
2.	Intelligence and Deprivation	—·318	·01**
3.	Moral judgement and Intellejence	·438	·01**

* p⁄·05 ** p⁄·01

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It is evident from Table III that there is a positive correlation between moral judgement and non-deprivation with high scores in the former being correlated positively with non-deprivation. Similarly, high intelligence scores were found to be positively related to non-deprivation and low intelligence scores with deprivation. Finally, high moral judgement was found to be positively correlated with high intelligence.

DISCUSSION

The discussion would follow the framework in which the present problems was envisaged in the form hypothesis, and one by one each salient feature will be unfolded. In the following section of this chapter, the investigator has endeavoured to integrate the findings of the study with results from other studies. Also attempt has been made to explore social-psychological conceptual positions that might be relevant for further educational investigations.

I. *Social Deprivation and Moral Judgement*: It was earlier hypothesized that, "socially non-deprived subjects will score higher on moral judgement test as compared to the socially deprived subjects".

Results of the present investigation support the hypothesis proposed above. The significant t-value (see Table I) and correlation (see Table III) are in favour of the non-deprived subjects as compared to the deprived children. Results of the present study are in concurrence with the findings of other studies done on the impact of social deprivation and the level of moral judgement. In general, these studies provide evidence that being deprived of normal social experiences has a marked and sometimes prolonged effect upon their physical, cognitive and moral development in children (Walker, 1980); Magsud, 1980; Firkowska, 1982). The various contributing factors bringing about this significant difference could be as follows.

1. *Child Rearing Practice*: When prolonged deprivation scale was administered to both the gaoup, deprived and non-deprived, it was found that parents of deprived environment do not have much time for their children, in such famllies adults and children endage in work to sustain their livelihood. The research on social background differences in child rearing practice brings forth the evidence that there is a relationship between social background and maternal care. According to Bronfenbrenner (1958) there is difference in rearing practices in socially deprived and non-deprived mothers. Socially benefitted mothers are more responsible to inner states, have a more acceptant and democratic relationship with their children whereas on the other hand socially deprived mothers stress on external standards of conduct and adherence to norms of the community. Sears, Maccoby and Levin (1957) found a positive relation botween child's activity level and his ability to resist temptation. With permissive home environment, children treated in this way mature in all respects including ego-organization that makes possible conformity to the rules. It has been seen that parents who rear their children in independent, permissive environment often produce children who are self-reliant, goal-oriented and with high moral standards.

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Proponents of reinforcement theories of social learning consider the child rearing antecedents of strength of conscience in terms of reinforcement, while psycho-analysis has stimulated conceptualization of the child rearing antecedents of strength of conscience in terms of mechanism of identification of the child with parental patterns and approval. According to Hoffman (1970), and Foder (1973) persistent withdrawal of love as punishment for a wrong doing by parents having a warm relationship with their children is associated with strong moral development in the offspring. Mowrer (1950) adds another insight on the relationship of parents to the development of morality in children, according to him, "if a child were cared for but never disciplined, he would presumably show only development identification and would develop skills but no moral character".

Studies from the father absent literature suggest that father absent children are vulnerable to nisruption in intellectual, moral and sex role development. There is evidence to support the fact that increased participation of the father would enhance the child's intellectual moral and sex development. But in case of father absent and working mother, father's participation is not indicated and such children are poor in moral judgement (Cox, 1978).

Therefore, as is evident, child rearing practice can be one of the contributing factors which brings about low level of moral judgement in socially deprived children.

2. *Parental Disciplinary Practice* : Evidence from research findings brings forther the view that there exists differences in disciplinary techniques, socially deprived mothers make use of physical assertion more than socially non-deprived mothers who rely on psychological punishment (Hoffman, 1960). Research studies in the area of parental disciplinary techniques and their effect on child's morality suggest that the use of love orirnted and other psychological disciplinary techniques increase the level of internalized moral control when compared to physical kinds of discipline (Hill, 1960; De Palma, 1973). In a study by Brown (1978) to assess the relationship between parental discipline and moral internalization as measured by the child's cxperience to guilt and level of internal moral judgement, results showed that moral internalization (index of guilt) in contrast to the index of internal moral judgement was the strongest correlator of conductor. The accompanying expectation that mothers use of power assertion was negatively supported. Thus we can say, as evident and supported by studies that frequent use of power assertion by the mother is consistently associated with weak moral development. Induction on the other hand is more apt to focus the child's attention on the consequences of his actions for others, the parent or someone else, thus making him morally mature.

3. *Models* : Modelling also has some effect on the learning of moral development in children. Parents in the different set of environment act as models in different ways. According to Hoffman (1970) in the socially deprived section, the combination of large family and less space may result in the parent and child interacting with many other people besides each other. Children spend more time outside as compared to the socially benefitted children. So the socialization process is more diffused in socially deprived because it is equally shared with parents, siblings, peers and others. Thus because of diffused socialization process in socially deprived, the basis for parents acting as perfect

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models may be differents in both the backgrounds. As is evident, parents is deprived environment do not present a good model for their children, they do not have time for such things. Therefore, for the socially deprived there is no one to place his trust ; no model to emulate ; no stimulus that implies him to foster his individual resources, while on the other hand the socially non-deprived parents act as perfect 'models for their children. The modelling is that it provides the child an outlet for channelizing his own feeling. Thus, in case where parent controls his anger, he discourages the child from openly doing so, may promote a turning of the anger inwards, which according to the psychoanalytic theory is the process by which guilt capacity is developed, evidently when guilt is there, moral development will automatically be there in the child. Bandura & Walters (1963) and Bryan (1969) considered identificantion as the most important source of his morality and stressed that the imitation on other was the primary from of learning.

4. *Social Group* : As children grow, they choose a large portion of their own social contacts, refine their congnitive and social skills and become increasingly self-directed. Jean Piaget (1932) in his autonomous morality discusses that morality arises from the interaction among status equals. Such relationship when coupled with general intellectual growth and weakening in the constraints of adult authority, create a morality characterized by rationality, flexibility and social consciousness.

It is through peer association that young children acquire a sense of justice—a concern for the rights of others, for equality and for reciprocity in human relations. Evidently as seen in deprive children they are more prone to environmental temptation to do immoral act, are more irrational and sonially unconscious. Delinquency is the violating existing law or anti-social behaviour. In most of the cases because of delinquency children do not adopt moral behaviour. These children come from a background of social economic, educational deprivation. Social learning factors are invoked and it is found that such delinquents, act in groups or gangs. Early investigators saw delinquency as being spawnee in the under-privileged and lower class environment, others have emphasized discord in the home, faulty child-rearing practice and poorparent-child-relationships (Breckenridge, 1966).

Therefore, difference between the level of moral judgement in the two deprivation groups cannot be consistently explained according to one theoretical viewpoint. They lend support to the contention that constituted social class differences in learning moral values exist or that a difference in class oriented child rearing practice; value orientation of parents and cultural opportunities accounts for the variance in the level of moral judgement between the two groups. It is contented that superior educational environments and greater opportunities for cultural advancement of non-deprived children over the deprived children accounts for the significant different in moral judgement.

II. *Intelligence and Moral Judgement* : The results revealed a positive correlation between intelligence and moral judgement (see Table III). Thus accepting the hypothesis stated earlier that, "high intelligence scores will be positively rslated to higher scores on moral judgement and low intelligence scores with low scores of moral judgement". The results of the present study can be substantiated with empirical evidence from other related

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studies that bring about a positive correlation between intelligence and moral judgement (Piaget, 1932; Kohlberg, 1964; Bloom. 1964).

The various factors accounting for favour of children with high intelligence performing better on moral judgement as compared to the poor performance of low intelligence subjects can be accounted for as due to the following factors :

1. *Cognitive Ability* : In the present investigation, the intelligence test and the moral judgement test tapped on the reasoning abilities of the child on hypothetical problem situation. The child was requested to solve various problem solving and various moral issues, response drawing upon the knowledge from his cognitive structure. Therefore, a child performing better on the intelligence test would to quite an extent, perform better on the moral judgement test Cognitive ability therefore, can be expected to be positively related to better performance on moral judgement. This fact has been supported by Piaget (1932), Kohlberg (1964) that the cognitive ability and moral development are parallel in children while significant relationships have been found between moral reasoning and the child's ability to structure his physical world cognitively, the parallel is generally found to be approximate.

2. *Cognitive Lag* : Studies indicate that with increase in age, the difference in cognitive ability between advantaged and disadvantaged children increases (Bloom, 1964; Gordon, 1965). This in other word is called "commulative deficit", according to Deutsch (1968). These studies further indicate that general learning and learning of moral concepts one in the home and later within the school is clearly associated with social status, Goldstein and Myers (1980) studying the concept of cognitive lag and grop difference in cognitive ability conclude that data from their study suggests that at any developmental stage the disadvantaged show a less advanted level of intellectual skills as compared to advantaged, suggestive of a lag in cognitive development. Their view is in consonance with Piaget's developmental theory of cognitive ability, wherein it suggests that the disadvantaged children display the sequence of cognitive development to a point, but the stage of development reached might be lower than that reached by their more advantaged peers (Piaget, 1932).

In the present investigation the sample consisted of children in the age fange of 9—10 years. Therefore, this hypothesis of cognitive lag may be put forth as accounting for the difference in moral judgement of children in the developmental stage characterised by slow rate of unfolding of moral concepts and values in the low intelligence subjects as compared to the high intelligence subjects.

3. *Creativity* : Each problem whether moral or cognitive poses a different solution some moral judgement is routine wherein we rely on our usual practices in solving the moral issues. However, in some, our creative efforts are required. Individual differences in their abilities to use various mental operations as they are associated with various content product. Some mental operations are particularly important in creative moral reasoning. Among the most important are those involving 'divergent production'. As with other forms of mental functioning creative thought is a joint product of divergent

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thinking using various contents and output. Various studies have indicated towards a positive correlation between high intellectual ability and creativity (Gilford, 1975; Getzels & Chikszentmihalyi, 1975). During moral reasoning many different objects are considered, each is exposed extensively and the appropriate objects are sought by those who produce original solutions.

The nature of the intelligence test and the moral judgement test used in the present investigation involved the usage of creative problem solving and moral reasoning on the part of the subject. Therefore, divergent thinking, in the high intelligence subjects could be one of the factors accounting for the differences in moral judgement.

III. *Intelligence and Social Deprivation* : It was earlier hypothesized that, 'socially non-deprived subjects will score higher on intelligence tests as compared to their deprived counterparts'. Results of the present investigation support the hypothesis proposed above. Significant t-value (see Table I) and correlation (see Table III) are in favour of the non-deprived. Results are in concurrence with other studies that show the negative effect of deprivation on cognitive competence in children (Bloom, 1964; Mishra, 1982).

Differences in the level of cognitive competenee are noted as early as pre-school years. It is, therefore, not unreasonale to seek for the sources of these differences in the patterns of experiences to which children in different social groups have been exposed to early in life. In one of the few attempts that have been made to construct a social psychological conceptual framework for the study of learning environments, Rosen (1959) in a series of investigations developed a concept of 'Achievement Syndrome'. It is proposed that learning environment of achievement oriented families can be defined by three inter-related components, achievement motivation, achievement value orientation and vocational aspirations. Rosen (1959) suggests that such motivation in children is generated by atleast two kinds of family socialization practices that are labelled 'achievement training' and 'independent training'. Studies have shown that child-rearing and disciplinary practices adopted by parents of the deprived children are low in achievement training and independence training (Bhushan, 1967; Muthayya, 1974). The reasons for difference in intellectual abilities could be that, in the case of non-deprived subjects parents socialization practice impose standards of excellence upon tasks, by setting high goals for their child and by indicating the high evaluation of his competence to do a task well, communicate to him, that they expect evidences of high achievement. Similarly for independence and training, parents indicate to children that they expect them to be self-reliant and grant their children relative autonomy in cognitive tasks and decision making situations which further facilitate the development of cognitive competence in the non-deprived children.

It has been found that IQ as measured through tests of intelligence varies as a function of socio-economic status, social background and residential area (Whiteman & Deutsch, 1968). Lack of efficiency in depth perception, perceptual differentiation, categorization, identification, conceptualization and other cognitive processes have been found in deprived groups (Verma & Sinha, 1971 and Verma, 1986).

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IV. *Effect of Social Deprivation and Intelligence on Moral Judgement* : So far the discussion has revolved around the relationship between social deprivation and intelligence on the level of moral judgement in children. The results of the present study can best be depicted through a cojoint effect of the two variables on the level of moral judgement in children. Studies have revealed that deprivation is negatively related to moral judgement and intelligence (Hilton, 1979 and Gibbs, 1982).

Analysis of the results and the data revealed linear correlation between social deprivation, intelligence and moral judgement, thus accepting the hypothesis that, "socially deprived children will be lower on intelligence and moral judgement as compared to the non-deprived children who will be high on intelligence and moral judgement".

Explaining the present result a rationale could be built to discuss the interaction of social and developmental factors and their impact on cognitive and moral judgement n children. A child from any circumstance who has been deprived of a substantial portion of the variety of stimuli which he is maturationaly capable of responding to, is likely to be deficient in equipment required for learning moral concepts; support for this is found in Piaget's developmental theory, who emphasizes that, "the rate of development is in substantial part a function of environmental circumstance" (Piaget, 1932). This emphasis on the importance of variety in the environment implies the determimental effects of lack of variety. Accarding to Deutsch (1968) this lack of experiential input in the deprived environment puts the child away from his maturation ceiling.

When the external environment is not conducive for appropriate internalization of moral values (as in the case of the deprived) as in adults and children since it offers greater opportunities to resist temptations. Adults have been found to indulge in greater number of antisocial activities and immoral behaviour for self gratification like cheating, stealing, telling lies and other associated immoral acts. The adult unconsciously presents an imperfect model and the child with lack of cognitive maturity, proper opportunities to learn and by imitation with imperfect model becomes prone to tempxation and resorts to various immoral behaviour acts. Studies have indicated that delinquent children come from a background of socio-economic and educational deprivation (Breckenridge, 1966).

Therefore, this co-joint effect of deprivation and intelligence on moral judgement could be accounted for the existing biogenic and sociogenic factors differentiating the two environments which place the non-deprived children at an advantage over their deprived counterparts when moral judgement and cognitive competence is taken into consideration.

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Is Intelligence is Inversly Related with Personality Rigidity.

Lakshmi Kant Singh.*

The study aims to examine the relationship between personality rigidity & intelligence. Wesley Rigidity scale and Samohik Mansik Yogyata Pariksha were administered on 60 male undergraduate students. It was found that rigidity is not significantly related to intelligenee. When t-ratio is computed between mean rigidity scores of high & low intelligent group, the obtained results have been found quite inconclusive. Further empirical reasearch is needed.

INTRODUCTION

The present study attempts to examine the reationship between personality rigidity and intelligence. Originally the terms rigidity has been used to indicate a state of muscular, Contraction, some times encountered in hypnosis or to the state of persistent contraction of the skeletal musculature due to disturbanoe of extra pyramidal pathways of nervous system (Warren, 1934). Latter on the term rigidity acquired a more psychological meaning than physiological. Fisher (1949) has give a summary description of personality rigidity viz. flexibility fludity, rigidity, perseveration and obsessive compulsiveness .....have all tended to refer to the idea that the behaviour of the people in different situation varies along a continuous marked at one extreme by cautious guardedness or limitation of reaction and at the other extreme by freedem of re-action or lack of defensive caution. Adorno *et. al* (1950) in their studies of "Autheritarian personality" used this concent in relation to temperament and it is thought to be the characteristic of the authoritarian personality. Wesley (1953) defined rigidity as a tendency to persist in responses that may previously have been suitable in some situation or other but that no longer appear adequate to achieve current goal or to solve current problems. Rehfish (1958) in his definition of rigidity incorporated all the element of Fisher summary description of personality rigidity. According to him the qualities most commonly included at rigidity poles are (a) Constriction and inhibition, (b) Consevatism, (c) Intolerance of disorder and ambiguity, (d) Obsessional and persevertive tendencies, (e) Social introversion and (f) anxiety and guilt.

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Like rigidity, nature of intelligence is still disputed topics. Though people have accumulated a good number of definitions. However after measuring several abilities jointly, Wechsler (1958) gave definition of intelligence which is supposed to be most adequate. Inspite of these controversies regarding the nature of intelligence it is measured quite efficiently. Little attempts have been made to related personality rigidity with intelligence. However a negative relationship between rigidity and intelligence have been found by Kounin (1941), Chown (1960) and Kellmer and Mekenizie (1965). However Mackic and Beek (1966) found that reduced intellactual functioning produces increased rigidity. Therefore the nature of relationship between intelligence and rigidity is not clear. Hence this study aims to examine the nature of relationship between intelligence and personality rigidity.

Hypothesis : It is hypotheslsed that intelligence will have an inverse relationship with rigidity. The intelligent person will be less rigid than the less intelligent.

3. Method : (A) *Sample* : The sample consisted of 60 male under-graduate student of K. K. M. College, Jamui under Bhagalpur University. The mean age was 20·5 years with the range of 18 to 22 years.

(B) *Tests-used* : In this study a Hindi version of Chown (1960) revision of Wesley Rigidity scale was used. It has 27 items. The split-half reability (N=50) on under-graduate subjects has been found to be ·78. When corrected by Spearman Brown formula. The test retest reliability of the Hindi version of the scale was found to be ·74 for N of 50 under-graduate student. The coffieient of correlation between the English and Hindi version of the WR scale was found to be ·89 (N=20).

Samoohik Mansik Yogyata Prakisha (1/61) developed by Tondon (1975) was selected to measure intelligence. The test (1/61) is a Hindi version of the group test of general mental ability (20/52) which is called Samoohik Mansik Yogyata Pariksa. It is a spiral omnibus type of verbal group test containing 100 questions. The reliability coefficient of the test reported by the auther range from ·59 to ·99 on different groups giving an average of ·71. The reliability of the test was also confirmed in several subsequent studies by Mishra (1971), Garg (1972), Mathura, (1972) and Chadda (1973). The validity of the test was also found to be ·60 by Jalota. A correlation of ·80 was also found between its original English form and Hindi form by Jalota and Tondon.

RESULT & DISCUSSION

In order to determine the relationship between rigidity and intelligence a coefficient of correlation was computed between WR scale and Intelligence score and the result has been presented in Table-1.

Table-I : Showing Correlation between Intelligence & WR.

Scales	N	R	P
Intelligence test & WR Scale.	60	·06	N. S.

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The analysis shows that rigidity is not significantly related to intelligence (r ·06.) Thus the hypothesis is neither confirmed nor rejected.

Table-II Showing t-ratio between mean rigidity. Scores of high & low intelligent group.

Group	N	Mean	SD	T
High intelligent Group.	31	16·42	2 82	
Low intelligent Group.	32	16·59	2·54	

The result presented in Table-II further confirmed, when t-ratio is computed to determine the significance of difference between mean rigidity scores of high and low intelligent group.

The obtained results have been found quite inconclusive. The coefficient of correlation between intelligence and rigidity scores, and its ratio of the distribution of rigidity in high and low intelligence groups are satisfically non-significant. Further empirical research is needed to determine the nature of relationship between rigidity and intelligence.

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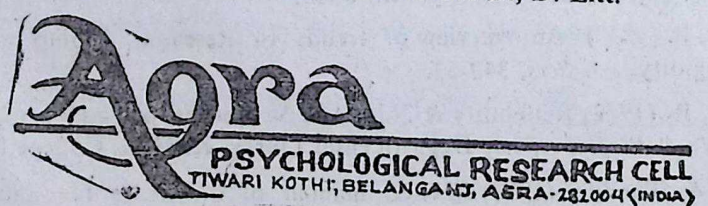
STATUS OF INDIAN RESEARCHES IN CREATIVITY

Edited By : **Dr. Govind Tiwari Ph. D., D. Litt.**



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Arousal of Avoidance Imagery as a Function of Reward-Punishment, Mother's Attitudes and Motive Strength

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An ANOVA using 2×5×4 randomized block design was applied on 520 subjects to assess the effect of mother's attitude towards childs-rearing, motive strength and Reward-Punishment on the arousal of avoidance imagery. Significant main effects of Motive Strength and Reward-Punishment were found whereas their interaction alongwith main and interaction effects of mother's attitude were non-significant.

INTRODUCTION

An avoidance motive represents an individual's capacity to experience pain in connection with negative consequences. This motive has been variously conceived viz., motive to avoid failure (Atkinson, 1957) : fear of failure (Heckhausen, 1963) and Birney *et. al.*, 1969) ; and fear of success (Horner, 1968) and is generally manifested in the form of post-behavior anxiety if avoidance is not followed. However, no systematic study indicates its arousal as a result of Reward-Punishment (R-P), Mothers' attitude towards child rearing (MA) and Motive Strength (MS).

It was speculated that R-P could act as negative reinforcers too. Therefore, it had been of interest to the investigators to quantify this negative effect on the arounsal of residual test anxiety or avoidance imagery. Effect of MA has already been studied (Agrawal and Kaur, 1987 ; Kaur and Agrawal, 1987). In the arousal of achievement imagery and hence its effect on the arousal of avoidance imagery (AAI) needed investigation. Therefore, the study was undertaken to ascertain the effect of MA, MS and R-P on the arousal of avoidance imagery.

METHOD

Sample : 1350 boys of ninth grade (age range 14-16 years) were contacted from catols Schoering to the middle income group.

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Experimental Design : The categorization variables were mother's attitude towards child rearing (MA) at two levels : Democratic (DM) and Authoritarian (AM), motive strength (MS) at five levels : HnAch-LTA (MS_1) ; HnAch-HTA (MS_2) ; AnAch-ATA (MS_3) ; LnAch—HTA (MS_4) and LnAch—LTA (MS_5). R—P dimension comprised four levels : No R—P (C_1) ; Verbal praise (C_2) ; Monetary reward (C_3) ; and disapproval (C_4) (as punishment). The subject within each category were randomly assigned to the R—P treatment conditions. It thus, constituted $2 \times 5 \times 4$ Randomized Block Factorial design with Test Anxiety as dependent variable.

Classification of Subjects

MA Groups : The adapted Punjabi version of Parent Attitude Scale to be filled by mothers (Nijhawan, 1968) were distributed to all the students, out of which 1246 responded using P_{33} (score range 30-40) and) P_{67} (range 57-70) as cut-off points, 411 mothers were categorized as DM and 412 as AM.

MA X MS Groups : The above 823 children were administered the adapted Test Anxiety scale for Children (Nijhawan *et. al.*, 1968 with Lie Scale). After excluding subjects with lie scale scores of more than 5 negative replies the remaining 253 DM and 267 AM children were also administered the adapted TAT. The distribution of n-Ach scores were trichotomized separately for AM and DM children. Five MS groups were now formed by combining TA and n-Ach groups within each MA category. It was ensured that the range of scores and number of subjects falling in each category was roughly the same for DM and AM categories.

Pre-treament n-Ach Session : The SIET (1964) version of the TAT adapted for use in India was administered to all the chosen subjects in small groups of 10-20 subjects each. The test was introduced as a test of creative imagination and each picture was projected on the screen for 20 seconds in a semi-darkened room. Four minutes were allowed for the writing of each story. Scoring was done as per Atkinson (1958) after accepted level of inter-rater reliability for n-Ach has been reached.

Manipulation of Treatment on R—P Dimension : The following unexpeeted, equitable and contingent R—P treatments with salient informational aspects were delivered to the subjects : (i) Verbal reward (praise): (ii) monetary reward (Rs. 2/-) ; (iii) Punishment (Disapproval). It also needs to be mentioned that giving Rs 2/—was expected to act as an equitable rewarding event for the subjects, when considered in the light of the amount of pocket money generally given in such families.

Within each MA X MS combination of subjects, the R-P treatments were randomly assigned. Alongwith the three levels mentioned above a fourth condition of no reward or punishment was also introduced as control condition.

Post-treatment TAT Session for the Assessment of AAI : 3-4 weeks after the pre-treatment session the subjects were recontacted. They were called individually according to their respective R-P groups irrespective of the classification variables i. e .MA and MS.

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After being given the neeessary treatment (i. e., praise, monetary reward or disapproval) they were instructed to respond to the TAT slides. Subjects in the control group did not recieve any treatment.

Post-Treatment Test Anxiety Session for the Assessment of Avoidance Imagery : Immediately following the post-treatment TAT the Test Anxiety Scale for children (Sarason *et. al.*, (1960) adopted by Nijhawan *et al.*, 1968) was readministered saying that the experimenter wanted to assess their then level of Test Anxiety.

Statistical Analysis : After ensuring homogeneity of variance through Bartlett's test ($Chi^2 = 26.44$; df $= 39$; $p < .25$) the unweighted RBF $2 \times 5 \times 4$ ANOVA was applied with data having disproportionate cell frequencies.

RESULTS AND DISCUSSION

Motive Strength : Effect of motive strength was significant ($F_B = 23.50$, df $= 4.240$; $p < .001$ with highest mean TA scores for group MS_4 followed by MS_2, MS_3, MS_5, and MS_1. It suggested that difference in the arousal of avoidance imagery or residual anxiety were in proportion to the basal level of test anxiety in the subjects.

Table-1 : Means and Standard Deviations for the Various Treatment Conditions.

K-P Treatment		AM C_1	AM C_2	AM C_3	AM C_4	MA C_1	DM C_2	DM C_3	DM C_4
MS_1	M	13·83	10·29	11·29	8·71	13·13	11·38	10·38	9 29
	S.D.	4·00	4·80	4·00	5·30	4·97	4·50	5·00	4·99
	n	6	7	7	7	8	8	8	7
MS_2	M	16·83	16·33	19·00	18·00	17·00	17·50	22.00	19·00
	S.D.	6·50	3·30	7·60	5·30	4·90	7·90	5·8	5 40
	n	6	6	6	6	6	6	6	5
MS_3	M	17·29	14·29	17·71	18·00	17·57	16·00	15·00	12·86
	S.D.	4·40	4·00	7 00	4 ·00	5·50	8·00	5·10	7·10
	n	7	7	7	6	7	7	7	7
MS_4	M	16·90	20·90	23·11	20·50	23·00	18·22	21·00	16·89
	S.D.	5·90	7·20	4·96	4·70	7·20	4·80	7·30	5·60
	n	10	10	9	8	9	9	9	9
MS_5	M	16·20	13·20	13·71	11·67	12·83	10·50	13·50	10 00
	S.D.	5·30	4·70	5·80	4·60	2·80	5·96	4·80	4·00
	n	5	5	7	6	6	6	6	6

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R-P Treatment: A significant main effect of R-P treament ($F_C = 2{\cdot}65$, df $= 3, 240$; $P < .05$) highlighted that the monetary reward alongwith no R-P treatment (control) produced significantly higher arousal of avoidance imagery than the verbal praise and disapproval. Verbal praise, however, significantly exceeded disapproval in its effects.

The non-significant differences between the monetary reward and no R-P treatment conditions in this study indicated that the dynamics of the arousal of avoidance imagery was different of AAI (Agrawal and Kaur, 1987). Monetary reward, thus, aroused two opposite tendencies, avoidance/approach quite significantly. The MS X *R*-P interaction effect of MS with R-P treatment was analysed which provided further varification.

Interaction of MS with R-P: This effect was non-significantly, indicating that avoidance imagery was not a function of the differential treatment on R-P on various MS groups of subjects. This is contrary to findings of arousal of achievement imagery where the differential R-P treatments were found to differ in their effectiveness when delivered to indiviauals differing in their MS. Thus, avoidance imagery operates as a generalized imagery among all the subjects irrespective of their motive strength and was highly associated with rewarding events or neutral events (no treatment) but the least with punishing events (disapproval).

Mother's Attitude Towards Child Rearing: Non-significant main and interaction effects signified that authoritarian and democratic attitudes of mothers towardsthe child rearing were not the significant contributors towards the avoidance imagery among adolescent boys. Once again this is in contrast to findings with the arousal of achievement imagery. This shows that the locus of avoidance imagery does not lie simply with the MA practices, other more effective factors control the development of avoidance imagery.

The first and second order interaction effect of MA with MS and R-P treatment were also found to be non-significant. These non-significant effects suggest that the factors affectihg the arousal of achievement imagery (Agrawal and Kaur, 1987; Kaur and Agrawal, 1987) are not the same as the arousal of avoidance imagery. It may either be due to the authoritarian attitudes of the fathers or the teachers or as a result of the traumatic experiences met during the childhood as a result of social learning situations.

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A Factor Analytic Study of E. S. P., Religiosity, Anxiety & Self-Concept

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INTRODUCTION

Parapsychology (Psychical Research) is the branch of psychology which deals with Psi (Psychic) ability and it's phenomena. The mental or objective type of Psi phenomena is "Extra sensony Pereeption" (ESP). There are four general types of ESP tests, (1) cairvoyance, the test ESP of an objective (2) telepathy, the test of ESP of another person, (3) general test of ESP in which either telepathy or clairvoyance, or both may operate and (4) Pre Cognition the test of ESP of the future. One of the simpliest ways to test ESP is to have the subject try to identify the symbols on concealed cards. In the clairvoyance tests the subject tries to name the symbols on cards when no one knows in what order the symbols are arranged.

An individual's behaviour is the result of the enterplay between uariables that bear a relationship with each other and these are interdependent on each other. The present study proposed to understand the nature of religiosity, anxiety and self-concept characteristics of the indiviual relating ESP. The study is conducted with the assumption that the EPS has multiple, interdependent and interactive causes and can be best understood in the context of interaction among the above mentioned variables.

METHOD

Sample : 175 subjects were taken in a random for the study from P. G. women's Hostel, Delhi, between the age range of 21-25. The technique of incidental sampling was applied here.

Tools and Technique : The tools employed in this study were E. S. P. test. L. Bhusan's Religiosity Scale, Dutta Personality Scale & Chadhas Self-Concept scale. All these measuring devices were paper and pencil tests.

Procedure : Rapport was established with the students by explaining the objective of the study in brief. The data was collected by administering the test individually. The ESP experiment was conducted in two different techniques BT & DT. Both the techni-

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ques were randomised in orders to avoid monotonous effect. In 'BT' test the cards were touched while doing the run. But in 'DT' test they were not. The Scoring of each test was done according to the instructions given in the manuals. Thus all the variables were scored and subjected to statistical analysis.

RESULTS

The correlational analysis based on Pearson Product Movement correlation shows a negative relation between ESP and religiosity at ·05 level. Anxiety and ESP are negatively related at .01 & .05 level. The deviation of the self-concept was negatively related with ESP at .01 level. The factor analysis was carried out following principle component solution (Hottelling, 1933) with a varimax rotation (Kaiser, 1958). Following the procedure of principal component five factors were extracted form the variables taken in the study. To retain different factors from the variables in this study. To retain different factors from the variables in this study, the cutting point of eigen value was taken as one. These component factors were further rotated to varimax solution. The proportion of variance contributed by these factor for rotated factor matrix are presented in Table-1.

Table-1 : Percentage of variance accounted by each factor.

Factors.	I	II	III	IV	V
Rotated	31.76%	22.65%	22.54%	12.21%	10.92%

The discussion of the result has been based on the varimax rotated factor matrix. It wrs thought apropriate to avoid the interpretation of the corrlation matrix and unrotated factor matrix for the reason that all of them were involved in the process of obtaining the rotated varimax factor matrix in accordance with the criterion of Kaiser's varimax solution. For the purpose of discussing the result of faclor matrix, the factor loadings of .40 or above were considered to be significant.

The first factor contributed a variance of 31.76% of the total variance and has not significant loading on all the components of anxiety factor. These signtficant factor loadings are presented in Table-2.

Table-2 : Giving Loadings of varimax factor 1.

Sl. No.	Name of the variables	Loadings.
1.	Insecurity	·697
2.	Depression.	·767
3,	Inferionify complex.	·668
4.	Guilt	·665

Contd.

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5.	Tension.	·779
6.	Suspicion	·574
7.	Emotional Stability	·758
8.	Hypochondriac	·454
9.	Somatic Reaction	·597

The second factor contributed a variance of 22 65% and has got significant loadings on ESP factor. The factor loading of these vairbales are presented in Table-3.

Table-3 : Giving loading on varimax Factor-II.

Sl. No.	Name of the variables		Loadings.
1.	ESP	D.T.	·987
2.	ESP	G.T.	·713

The third factor contributed a vairance of 22·55% from the total variance and has significant loadings on ESP factor. The factor loadings of these variables are presented in Table-4.

Table-4 : Giving Loading on varimax Factor-III.

Sl. No.	Name of the variables		Loadings.
1.	ESP	BT	·974
2.	ESP	GT	·688

DISCUSSION

It is observed that Factor-I is a very complex factor consisting of nine variables in all. These variables are components of anxiety factor. The highest positive loading of tension factor indicates that tension is the main existing factor in individual and it influences ESP. In the light of the above discussion this factor may be named as

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"ANXIETY FACTOR". The varimax factor-II consists of two variables, which includes the DT technique and the grand total of extra sensary perception. So this factor may be named as "EXTRA SENSORY PERCEPTION FACTOR." The varimax factor-III consits of two variables, that includes the BT technique and the grand total of ESP. The positive loading on the grand total on both the technique BT and DT suggest the existence of ESP in the individual. So this factor may be named as "EXTRA SENSORY PERCEPTION FACTOR".

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Study on the Job Satisfaction of Teachers

Ch. Radha Krishna Murthy & D. Rama Prasad*

This study was conducted with 57 teachers working in Agricultural College, Bapatla. Associate Professors when compared with Assistant Professors and Instructors were having more job satisfaction and there was no statistical difference between Assistant Professors and Instructors with regard to job-satisfaction. Age, length of service, achievement motivation, job autonomy, task identity and personal importance of teachers were significantly associated with the job satisfaction. Achievement motivation and job autonomy were significant predicators of job satisfaction.

INTRODUCTION

Job satisfaction may be defined as pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences (Lock, 1976). The job satisfacation results from the perception that one's job fulfills or allows the fulfilment of one's important job values providing and to the degree that those values are congruent with one's needs. In view of the job satisfaction as a causal factor, in job behaviour, expecially level of performance, the present study has been taken with the following objectives.

1. To measure the job satisfaction of teachers at various levels of teaching hierarchy. 2. To find out the casual factors of job satisfaction., 3. To predict the job satisfaction.

Methodology : The sample for the study consisted of sixty teachers selected on a random basis working in the Agricultural College, Bapatla, which is one of the three Agricultural College functioning under Andhra Pradesh Agricultural University. Of the sixty teachers contacted, ninety five percent responded with usable data. Respondents included five professors, twenty seven Associate professors, Seventeen Assistant professors and eight Instructors. The information was collected through interview schedule.

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The measuring instrument used in the present study was developed by Sridhar (1977) with some modification to suit to the needs of present situation. The scale consists of 18 items dealing with an individual's feeling towards his job as a whole. Each item could be replied by checking any one of the five possible answers, i. e. very much satisfied, satisfied, partially satisfied, dis-satisfied, verymuch dis-satisfied. The items were selected in such a way that the satisfied end of the scale was indicated by very much satisfied and satisfied for one half of the items and by very much dissatisfied and dissatisfied for the other half of items and partially satisfied in the middle. The scoring procedure was 5 for very much satisfied, 4 for satisfied, 3 for partially satisfied, 2 for dis-satisfied and 1 for very much dissatisfied. The possible range of scores are 18 to 20. Higher score meant higher job satisfaction.

RESULTS AND DISCUSSION

Table-1 revealed that there were 26 teachers with Ph. D. and 31 teachers with Post-Graduate Degree. The mean job satisfaction scores of teachers with Ph. D. and teachers with post-graduate degree were 65·3462 and 65·4194 respectively.

Table-1 : Significant difference between mean job satisfaction scores of teachers with Ph. D. and teachers with P. G. Degree.

Qualification	Sample size	Mean job satisfaction scores	't' value.
Teachers with Ph. D.	26	65·3462	0 0278
Teachers with P.	31	65·4194	

The 't' test was applied to see whether there is any significant difference between mean job satisfaction scores of the two types of the qualified teachers. The 't' test result gave a non-significant value of 0·0278. Hence, it is inferred from the above finding that there is no difference between the job satisfaction of teachers with Ph. D. and teachers with non-Ph.D. Their job stisfaction is same.

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Table-2 : Significant difference between mean job satisfaction scores of teacher at various levels.

S. No.	Cadre	Sample size	Mean job satisfaction score	't' value
1.	Professors ...	5	69·60	
				0·1594
	Assoc. Professors	27	68·7777	
2.	Professors ...	5	69·60	
				1·9686
	Asst. Professors ...	17	60·4118	
3.	Professors ...	5	69 60	
				1·3777
	Instructors ...	8	61·875	
4.	Assoc.Professors ...	27	68·7777	
				3 0074**
	Asst. Professors ...	17	60 4118	
5.	Assoc. Professors ...	27	68·7777	
				1·9705*
	Instructors ...	8	61·875	
6.	Asst. Professors ...	17	60·4118	
				0·4960
	Instrucors ...	8	61·875	

* Significant at 00·5 level of probability,

** Significant at 0 01 level of probability.

Table-2 showed that the teachers at different levels of hierarchy (Professors, Associate professors, Assistant professors and Instructors) have possessed different mean job satisfaction scores. To find out whether there was any significant difference between mean job satisfaction scores of any two cadres (for instance, professors-Associate professors, Professors-Assistant professors, —Asst. professors-Instructors) the 't' test was applied.

The results of 't' test showed that there was a significant difference between mean job satisfaction scores of Associate professors and Assistant porfessors, Associate professors and Instructors. All other combinations gave non-significant 't' values. Hence it could be stated that the job satisfaction of professors, Assistant porfessors and Instructors was same. But Associate professors differed significantly with Assistant professors and Instructors in respect of job-satisfaction. So it can be concluded that Associate professors were having more job satisfaction than Assistant professors and Instructors.

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Table 3 : Correlation of independent variables with the extent of job satisfaction. (N=57)

S No.	Independent variables		"r" values
1.	Age	...	0 3248*
2.	Education	...	—0·0038
3.	Length of service	...	0 3664**
4.	Rural-Urban background	...	—0·1738
5.	Achievement motivation	...	0·2538*
6.	Job autonomy	...	0·2997*
7.	Task identity	...	0·2799*
8.	Personnal importance	...	0·3279*

* Significant at 0·05 level of probability. ** Significant at 0·01 level of probability.

A perusal of table 3 showed that out of eight independent variables of teachers correlated with their job satisfaction, six independent veriables yielded signifacant correlation coefficients. When experience of the teachers in the service gave significant correlation coefficient at 0.01 level of probability, age, achievement motivation, job autonomy, task identity and personal importance were significant at 0.05 level of probability. The variables like education and rural-urban background did not show any relationship with job satisfaction. Hence, these two non-significant variables are not considered for discussion.

Age of the teachers has shown positive and significant association with their job satisfaction. Sandhu and Singh (1977) and Janardhana (1979) have observed a significant relationship between age and level of job satisfaction of Agricultural Extension officers. Howover, Dvivedi (1980) reported that there was low positive relationship between age and job satisfaction. It is inferred from the Table-3 the with the increase in the age of teacher, his satisfaction in the job increases. Length of service of the teacher refers to number of years the teachers have served in the University. It is logical to think that if any teacher put more number of years in the service he would have been deriving more satisfaction in the job. From the table-3 it was observed that a positive and significant association between experience and job satisfation. These results were in confirmity with the findings reported by Milliken (1978) and Reddy (1982) that there was a positive relationship between the years of experience and job satisfaction. Job autonomy and task identity are the job characteristics. Job autonomy is the degree to which the job provides substantial freedom, independence and discretion to the individual in scheduling the work and determining the procedures in carrying out task identiy refers to the degree to which the job requires completion of a whole and identifiable piece of work.

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If the teachers have a feeling that these two characters are provided in the job they are expected to feel happy to be in the job. From the table-3, it is revealed that there was a positive and significant association between task identity and job satisfaction, job autonomy and job satisfaction. More the job autonomy and better the task identity of a teacher, more would be his job satisfaction Personal importance reflects the extent to which teachers felt they were making significant and appreciated contribution to the institution. Those who felt that their work was valued more would be satisfied with their jobs. The finding in table-3 showed that positive and significant association exists between the personal importance of teachers who with their job satisfaction. It was inferred that if the feeling of personal importance among teachers increases, their satisfaction in the job also increases.

Table-4 : Multiple regression analysis of the job satisfaction on eight independent variables.

S. No.	Independent varibales	'b' values	't' values
1.	Age ...	—0·2339261	0·7029
2.	Education ...	—1·9683374	0·8720
3.	Experience ...	0·5045593	1·5938
4.	Rural-Urban background ...	—0·6722022	1·6714
5.	Achievement motivation ...	0·7191973	2·4157*
6.	Job autonomy ...	1·0339873	2·3905*
7.	Task identity ...	1·0342576	1·1848
8.	Personal importance ...	0·5307925	1·1253

R^2 = ·3986 F=3·9769**

* Signatificant at 0·05 level of probability,

From the table-4 it was observed that the computed *F*-ratio was 3.9769 at 48 and at 8 degrees of freedom. It was significant at 0.01 level of probability. The statistical test thus indicated that all the eight independent variables taken together explained significant amount of variation to a proportion of 39·86 percent in the job satisfaction of teachers. Out of eight independent variables fitted in the multiple regression equation only two variables namely, achievement motivation and job autonomy have significantly contributed to the job satisfaction of teachers.

CONCLUSIONS

1. Associate professors are having more job satisfaction when compared to Assistant professors and Instructors.
2. Job satisfaction is the function of age, length of experience, achievement motivation, job autonomy, task identity and personal importance.

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3. Achievement motivation and job autonomy contributed significantly towards the job satisfaction.

Implications : The results of the study are having bearing on the administration concerned to provide job satisfaction to the teaching staff. The following suggestions are provided for the management.

1. Incentive programmes have to be provided and they must be rewarding,
2. Job enrichment should be created in the jobs like providing job autonomy and task identity thereby teachers may feel satisfaction in their jobs.

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The Attitudes to Microteaching of Teacher-Trainees of Gujarat

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Microteaching is a technique of teacher education involving the practice in simplified conditions of specific skills of teaching. This paper covers construction of an attitude scale for measuring attitude to microteaching, using Thurstone and Chave method. In the second part investigator has discussed the pattern of the attitude to microteaching of student-teachers (N= 555) of different universities of Gujrat.

INTRODUCTION

It is now over the two decade since the first microteaching pogramme was developed at Stanford University in 1963 (Allen & Ryan, 1969) and since that time this technique has inspired a vast amount of Research. Joshi (1979) classified these researches into four phases : such as, (i) feasibility studies, (ii) effectiveness of microteaching as compared to other techniques of teacher preparation in developing teaching skills, (iii) relative effectiveness of microteaching varitions in its comonents, (iv) identification of teaching skills and development of instructional material for teaching skills. The researchers has not taken saperate attention to the researches related to attitude to microteaching, but the area is not un-touched too. Here is an illustration : Passi (1975), during development of instructional material for five teaching skills developed an attitude scale. This study revealed that attitude of student teachers was favourable towards microteaching technique. Dass, Passi and Singh (1980) also used an attitude scale in his project. An effort has been made by investigator for measuring attitude to microteaching constructing an attitude scale following Thurstone and Chave method.

The Problems

1. Is there any significant difference among teacher-trainees of different universities in their attitude to microteaching ?

* The investogator is indebted to JOSHI, C. V. for their help in collecting the data for scale construction.

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2. Is there any significant difference among male and female teacher-trainees of different universities in their attitude to microteaching ?

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3. Is there any significant difference among teacher-trainees of different faculty in their attitude to microteaching ?

4. Is there any significant difference among teacher-trainees of different age in their attitude to microteaching ?

5 Is there any significant difference among teacher-trainees of different achievement level (B. Ed. Part-I) in their attitude to microteaching.

CONSTRUCTION OF THE ATTITUDE SCALE : An attitude scale to measure the attitude of teacher-trainees to microteaching was constructed in Gujrati, following Thurstone and Chave (1951). Statements were first obtained through a discussion (in a group) of teacher-trainees about microteaching). These were subsequently supplemented by statements taken from articles of magazines and other current writings on the subject. The first pool of 50 statements was edited.

Thirty-four teacher-educator and twenty-seven secondary school teacher were then salected as judges. They were asked to sort the statements in seven piles ranging from most favourable to least favourable. Four teacher-educator and seven secondary school teacher were eliminated as judges because they misunderstood the directions of the continum. Thus judgements of fifty experts were used for analysis.

As is well known, Thurstone and Chave used 300 judges in obtaining scale value for the 130 statements, they used in constructing an attitude scale for attitude towards the church. Subsequent researches Unrbrock (1934), Edwards and Kenny (1946), and Desai (1983), have shown that reliable scale values can be obtained with smaller groups of judges.

The judges, ratings were analysed and scale values & Q-values were computed for all the fifty statements. Finally, twenty statements were so selected that scale values of the statements on the attitude continum were relatively equally spaced and Q-values were reletively small. The statements were also checked for irrelevance. In table-1, the statements are given (English translation) with their scale values and Q-values. It may be noted that the scale was so constructed that higher scale values indicate higher favourable attitude.

Table 1 : Scale values & Q-values of the statements in the scale.

No.	Scale Value	Q-value	Statements.
1.	4.4	2.5	Microteaching is a fool-proof device.
2.	3 0	3.2	Teacher is born, teacher cannot be made through microteaching.
3.	4 6	2.0	Microteaching is just like a mother to a teacher-apprentice.
4	1.5	2.2.	Microteaching is a mechanical procedure.

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5.	3.4	3.7	Microteaching exerts quick effect on the method of self-improvement and self-appraisal.
6.	1.5	5.6	Microteaching is a more effective device than the traditional method in teacher-training programme.
7.	3.5	4.8	Microteaching provides a novel approach to observation of lessons.
8.	3.5	2.9	Microteaching is a limited experiment to teach different subjects.
9.	2.7	3.3	Microteaching may fail on account of larger number of students in classroom.
10.	2.3	3.3	Adopting microteaching technique involves many administrative difficulties.
11.	3.1	2.9	Microteaching does not offer solutions to all problems related to professional training.
12.	5.9	0.9	Microteaching is an effective device for a teacher to attain teaching skills.
13.	1.5	4.8	Microteaching provides teacher training by creating ideal situation.
14.	2.0	4.7	Microteaching facilitates complicated teaching procedure.
15.	1.8	2·5	Microteaching cannot prove congenial to Indian practice of teacher training.
16.	2.3	3.0	In microteaching, the teacher finds it difficult to divide large units into small units.
17.	2.2	2.5	Microteaching offers difficulty from administrative viewpoint.
18.	4.2	2.6	Microteaching crhates maximum interest & zeal in teacher-training.
19.	5.5	1.9	Microteaching becomes helpful in purposeful style of teaching.
20.	5.7	2.1	Microteaching helps the teacher in internalising teachership.

The reliability of the scale was determined by the test-retest technique. The test-retest reliability involving 80 subjects and having one month interval, was found to be 0.69, which is high.

The validity of the attitude scale was determined on the basis of method master' ratings of teacher-trainees' attitudes. The teacher-method master concerned were asked to rate the attitudes of teacher-trainee on a five point scale. The validity co-efficient thus obtained was 0.527 (N=60), which is high.

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Measurement of Attitudes Towards Microteaching.

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Method : The research was aim to measure the attitude of teacher-trainees towards microteaching. The attitude scale was divided into two parts. In the first part the student-teacher were asked to write their name, name of the college, sex, qualification, age, and marks obtained in B. Ed. first semester. In the second part, the twenty statements were presented in a random order with respect to scale values. The student-teachers were instructed to read the statemants carefully and to tick mark only those statement which reflected their own opinion. The subjects' attitude was then taken as the mean scale value of all the statements that he/she tick marked.

Sample : A sample was selected randomly for the research. The sample was drawn from education colleges of the different universities of Gujarat. The sample of 555 student-teacher consisted 299 male and 256 female-teachers, were from 8 education colleges of five universities of Gujarat.

Analysis of data ; As reported earlier, attitude of 555 student-teachers to microteaching are are used for statistical analyses. It may well be remembered that the attitude scale was so constructed that higher mean scores indicate higher favourable attitude. The difference between means of attitude scores of different groups of the sample are calculated and interpretated according to problems of the study.

Table-2 shows the number of student-teachers fall in the sample from different university, their mean attitude scores, standard deviation of the scores, and the critical ratios of the difference between means tested by *t*-test technique. A, B, C, D and E are used for the university of Bhavnagar, Gujarat, Gujarat Vidyapith, Saurashtra and Vallabh vidyanagar.

Table-2 : Critical ratios of the difference between means of attitude scores of student-teachers of different universities.

University (With N, M, SD)	University A	B	C	D	E
A (90, 3.68, 0.37 0)	—	—	—	—	—
B (145, 3.81, 0.3691)	2.60**	—	—	—	—
C (80, 3.98, 0.3475)	5.42**	3.44**	—	—	—
D (150, 4.03, 0.4045)	6.81**	4.88**	0.98	—	—
E (90, 3.81, 0.4873)	2.01*	0.00	2.64**	3.60**	—

** Significant at 0.01 level

* Significant at 0.05 level

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Table 2 : reveal that; (1) teacher-trainees of Saurashtra and Gujarat Vidyapith have a more favourable attitude to microteaching than teacher-trainees of Bhavnagar, Gujarat and Vallabhvidyanagar university, and (2) it can be also concluded that student-teachers of Gujarat University and Vallabhvidyanagar university have a more favourable attitude to microteaching than student-teachers of Bhavnagar University. According to mean value and difference between means of attitude score of two groups, attitude to micro-teaching among student-teachers of different university ranked as follows : 1. Saurashtra/Gujarat Vidyapith, 2. Gujarat/Vallabhvidyanagar, and 3. Bhavnagar.

Table 3 : shows the number of male and female student-teachers in the sample of different universities, their mean attitude scores, SD of the scores and the critical ratios of the difference between means.

Table-3 : Critical ratios of the difference between means of male & female teachers of different universities.

University	Sex	*N*	*M*	*SD*	*t*
A	Male	37	3.680	0.408	0.166
	Female	53	3.666	0.371	
B	Male	104	3.812	0.395	0.097
	Female	41	3.818	0.307	
C	Male	46	3.916	0.326	
	Female	34	4.069	0.356	1.969
D	Male	55	3.976	0.415	
	Female	95	4.089	0.396	1.634
E	Male	57	3.85	0.44	
	Female	33	3.73	0.55	1.07
TOTAL	Male	299	3.849	0.409	
	Female	256	3.909	0.436	1.4

* Significant at 0.05 level

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According to table-3 female-teachers of Gujarat Vidyapith have a more favourable attitude to microteaching than male-teachers of the same university. Looking from another angle there is no significant difference between mean attitude score of male and female teachers to microteaching other than the sample of Gujarat Vidyapith.

Table-4 : shows the number of student-teachers according to different faculty in sample universities, their mean attitude scores, S. D. of the scores and the critical ratios of the difference between means.

Table-4 : Critical ratios of the difference between means of attitude score of student-teachers of general steram & science stream.

University	Stream	N	*M*	SD	*t*
A	General	64	3.632	0.406	1.720
	Science	26	3.769	0.313	
B	General	58	3.7382	0.4078	1.8817
	Science	87	3.86	0.3392	
C	General	68	4.033	0.334	4.0561**
	Science	12	3.685	0.262	
D	General	121	3.9963	0.404	0.9843
	Science	29	4.0934	0.493	
E	General	48	3.918	0.469	2.2034*
	Science	42	3.696	0.484	
TOTAL	General	359	3.886	0.430	1.343
	Science	196	3.836	0.413	

* Significant at 0.05 level, ** Significant at 0.01 level.

Table-4 : reveals that, for two groups, there is a significant difference between the attitude of student-teachers of different faculty to microteaching. These two groups were from Gujarat Vidyapith and Vallabhvidyanagar. The student-teachers of general stream (arts and commerce graduates) have a more favourable attitude to microteaching than the student-teachers of science stream (Science graduate). This is not true for the sample of other three universities.

Table-5 : shows the number of student-teachers fall in the sample according to their age, mean attitude score, SD of the score and the critical ratics of the difference between means.

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Table-5 : Critical ratios of the difference between means of attitude score of student-teachers of different age.

University	Age years	N	*M*	SD	*t*
A	Above 25	60	3.651	0.416	0.7852
	below 25	30	3.713	0.317	
B	Above 25	54	3.8259	0.4209	1.0676
	below 25	91	3.8	0.3428	
C	Above 25	31	3.928	0.286	1.1689
	below 25	49	4.015	0.377	
D	Above 25	57	4.0436	0.3985	0.2128
	below 25	93	4.0253	0.4282	
E	Above 25	36	3.88	0.43	1.092
	below 25	54	3.77	0.52	
TOTAL	Above 25	238	3.8554	0.4248	0.8370
	below 25	317	3.8859	0.4249	

Table-5 : reveals that for the entire sample, there is not significant difference between the attitude to microteaching if teacher's age is considered for judgement. Thus it can be concluded that the teachers of different age do not differ is their attitude to microteaching.

Table-6 : Shows the number of teacher-trainees of the sample according to their achievement level ($p \angle .50$; B. Ed. Part-1), their mean attitude scores, SD of the score and the critical ratios of the difference between means.

Table-6 : Critical Ratios of the Difference Between Means of Attitude Scores of Student-Teachers of Different Achievement level.

University	Achievement level.	N	M	SD	*t*
A	High	48	3.692	0.328	0.5101
	Low	42	3.649	0.452	
B	High	76	3.7573	0.3801	1.7846
	Low	69	3.8668	0.3586	

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C	High	51	3.9409	0.3046	1.2907
	Low	29	4.0520	0.4026	
D	High	102	4.0328	0.3826	0.1430
	Low	48	4.0219	0.4012	
E	High	41	3.641	0.505	3.200**
	Low	49	3.959	0.423	
Total	High	318	3.8499	0.4109	1.4284
	Low	237	3.9013	0.4255	

** Significant at 0.01 level.

Table 6 : reveals the that student-teachers of low achievement level ($p\angle.50$) of Vallabhvidyanagar university have a more favourable attitude to microteaching as compared to student-teachers of high achievement level ($p\angle.50$) of the same university. This is not true for the student-teachers of Bhavnagar, Gujarat, Gujarat Vidyapith and Saurashtra University.

CONCLUSION

Attitude to Microteaching of the Sample Teachers-Trainees was Found Average.

1. Attitude to microteaching among student-teachers of different universities ranked as follows : (a) Saurashtra/Gujarat Vidyapith, (b) Gujarat/Vallabhvidyanagar, and (c) Bhavnagar. 2. Teacher-trainees of Saurashtra and Gujarat Vidyapith have a more favourable attitude to microteaching than teacher-trainees of Bhavnagar, Gujarat and Vallabhvidyanagar University. 3. The student-teachers of Gujarat University and Vallabhvidyanagar University have a more favourable attitude to microteaching than student-teachers of Bhavnagar University.
4. Female teacher-trainees of Gujarat Vidyapith have a more favourable attitude to microteaching than male teachers-trainees of same university. This is not true for the sample of other four universities. 5. Teachers-trainees having basic degree arts or commerce General stream) of Gujarat Vidyabith and Vallabhvidyanagaar university have a more favourable attitude to microteaching than teachertrainees having basic degree science. This is not true for the sample of other three universitv. 6. Teacher-trainees of different age do not differ significantly in their attitude to microteaching, 7. Teacher-trainees of

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low achievement level (B. Ed. Part-I) of Vallanhvidyanagar university have a more favourable attitude to microteaching than teacher trainees of high achievement level of the same nniversity. This is not true for the sample of other four universities.

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NEED PATTERN OF TRIBAL AND NON-TRIBAL YOUTH

Dr. S. C. Sharma

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A Study on Selected Dimensions of Fortnightly Training of Agricultural Assistants Under T & V System in Tumkur District of Karnataka State

Gangadharaiah[1], Chandargi, D. M.[2], Hanchinal, S. N.[3] and Jahagirdar, K. A.[4]

In Tumkur district of Karnataka State, the extent of training input application on farmers' field by agricultural assistants under T & V system with respect to training topics-harvesting, threshing and intercultural operations was in the descending order. It was also revealed that the teaching methods namely group discussions, demonstrations, field visits and study tours had higher perceived preferences by the agricultural assistants in the study conducted on selected dimensions of fortnightly training of agricultural assistants.

INTRODUCTION

India, predominantly an agricultural country. It has been striving hard to achieve modernisation in agriculture through the programmes like-Integrated Rural Development Programme (IRDP), Traning and Visit System (T & V system) of approach or agricultural development. In the agricultural development projects, the agricultural assistant occupies the most crucial position. The progress of all these government sponsored agricultural development progammes rests squarely on the shoulders of this key functionary as he happens to be an indicator, legitamizer, motivator and executor of the programmes at the clientele system level.

The traditional agricultural organisation set-up in fourteen States has been replaced by time bound management system known as Training and Visit system (T & V system). This reorganised extension system caims to remove many of the inadequacies of the traditional system.

This new extension system was introduced in Karnataka during 1978 on a pilot project by the Government of Karnataka as a State sponsored scheme in 14 talukas of four irrigated command areas. The scheme was extended to cover the entire State of Karnataka in three phases with the financial assistance of World Bank. Emphasis is

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laid on the training of departmental staff identified as subject matter specialists (SMS) periodically by the scientists of the University of Agricultural Sciences and resource persons of the Department of Agriculture. The base level field functionaries receive the training from subject mater specialists team once in a 'fortnight and in turn transfer the technology to the contact farmers through a fixed schedule of visits.

In Karnataka, the training sessions are conducted every fortnight in which taluk extension staff comprising Assistant Director of Agriculture, three subject matter specialists, Assistant Agricultural Officers and Agricultural Assistants. The messages on impact points get finalised in the monthly workshop for the next fortnight by the subject matter specialists team. Training being an important component in the 'Training and Visit System', it was feltnecessary to study its dimensions under the new system. The consequences of training to the agricultural assistants gets reflected in the consequences on the farm, as agricultural assistants are the grass-root levels functionaries. The objectives of the study were :

1. To analyse the extent of application of training input on the farmers fields by extension personnel as perceived by them., 2. To understand the perceived preferences of agricultural assistants to training methods.

MATERIAL AND METHODS

The study was conducted during the year 1985-86 in Tumkur district of Karnataka State. This district was purposively selected taking into consideration the student-researcher's accessibility to the area of the study and the existing infrastructural facilities. The district consists of 10 taluks, out of ten taluks, seven taluks were selected based on area under ragi crop cultivation. In the selected seven taluks, 110 agricultural assistants were working in the agricultural extension project. The agricultural assistants who had already finished one year experience in agricultural extension project were selected for this study.

Degree of appltation of training input on the farm activities :—This variable was included to know the extent of application of training input on the farm activities. This was quantified on a four-point continuum. Based on their responses each topic mean was found out, based on the mean scores, the topics were ranked.

Training Methods :—Keeping in view the possibility of using the different methods and the methods indicated by Rao (1969), five singe methods, fourteen combination of two methods and four combinations of more than two methods were presented on a three point rating scale to study their perceived preference of the frequency, of using these methods in fortnlghtly training sessions for agricultural assistants. Based on the frequency, mean scores the final rank order with regard to preference for these methods byagricultural assistants was arrived at.

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RESULTS AND DISCUSSION

The discussion on the results of this study are presented in the following paragraphs.

1. Applciation of training input on the farm activities by the agricultural assistants. 2. Agricultural assistants preference for traning methods and physical facilities available for training sessions.

Table-1. Rank order of degree of application of training input on the farm activities as perceived by Agricultural Assistants.

Sl. No.	Topics	Mean Score	Rank
1	Harvesting	3.30	1
2	Threshing	3.27	2
3	Intercultural operations	3.26	3
4	Application of organic manure	3.18	4
5	Preparatory tillage	3.16	5
6	Time of sowing	3.10	6
7	Recommended variety	2.93	7
8	Application of fertilizers	2.92	8.5
9	Storage	2.92	8.5
10	Water management	2.71	10
11	Soil testing	2.70	11
12	Special dry farming practices	2.59	12
13	Plant protection	2.52	13

Rank order of degree of application of training input on the farm activites:—An examination of findings in Table-1 reveals that with respect to application of training input, harvesting, threshing and intercultural operations stood first, second and third in the rank order, where as important dry farming practices and plant protection were the least in the rank position. The above trend could be explained by the following reasons. The degree of application depends upon simplicity, relative advantage, complexity and compatibility of the practices in addition to availability of production inputs. Other reason might be the uniform applicability of no cost and low cost technologies by different categories of farmers.

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Training methods preference for training in fortnightly sessions as expressed by Agricultural Assistants :—It was interesting to note from the data from the Table-2, that Agricultural Assistants have indicated greater preference to group discussion, field visits and study tour among the single methods. This tendeney could be explained by the fact that these methods would facilitate greater involvement of Agricultural Assistants for clarifying the doubts with subject matter specialists than a lecture. The field visits and study tours were preferred as second, might be due to the reason based on their previous training experiences, these methods provide greater scope for interaction and clarification of doubts among Agricultural Assistants confronted with similar kinds of field problems. Also these methods provide the opportunities of farmers involvement also. Because of the limitation to choose and use the methods in their field work, lower preference have been accorded to exchange of ideas with specialists, officers and progressive farmers. This might be due to the fact that, they may have inhibitions to discuss with superior officials.

With reference to the preferential ranking of combination of two methods the general trend of assignment of higher preferential ranks to combinations involving lecture and group discussion ; group discussion and demonstration than the other combinations with field visits and study tour and teaching aids could be seen. Even though lecture is one way of communication after hearing or being aware of information or subject matter, if they discuss with their trainers and ideas from different participants provide reinforcement and combination of effectiveness for job. As expected, demonstration itself being a complete method when combined with any of the other methods forms an effective combination, hence has been preferred to a greater extent. This is in line with cone of experience given by Edgar Dale. Combination of more than two methods also indicated the similar trend. The combination of lecture, group discussion and demonstration was the most preferred. This could be because of suitability to adopt this combination comparatively shorter time and also with greater effectiveness. The combination is also amenable for use in training sessions regularly at the research stations and other locations. With above discussion, one can highlight that, group discussion was accorded high preference in combination with demonstration, field visits and study tour, whereas least preference was accorded to exchange of deas with specialists, officers and progressive farmers and lecture, irrespective of combination of methods.

The study conducted by Pisharoddy (1962), Bhaskaram (1966), Adivi Reddy and Jayarama Reddy (1966), Jani and Jha (1976), Murthy (1977), Joshi (1979) have revealed a similar trend as found in the results of this study.

Table-2. Training methods preference for training in fortnightly session as expressed by Agricultural Assistants.

Sl. No.	*Training methods*	*Mean Score*	*Rank*
I	**SINGLE METHOD**		
1.	Group discussion	2.6818	1
2.	Field visit and Study tour	2.4818	2

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3 Demonstration	2.4636	3
4. Lecture	2.1727	4
5. Exchange of ideas with specialists officers and progressive farmers	2.1545	5
II COMBINATION OF TWO METHODS		
1. Lecture + group discussion	2.4636	1
2. Group discussion + demonstration	2.4000	2
3. Lecture + field visits & study to urs	2.3909	3
4. Lecture + demonstration	2.327	4
5. Demonstration + field visits & study tours	2.3545	5
6. Group discussion + field visits and study tours	2.3363	6
7. Demonstration + use of teaching aids	2.3181	7
8. Lecture + use of teaching aids	2.3000	8.5
9. Group discussion + use of teaching aids	2.3000	8.5
10. Field visits and study tours + use of teaching aids	2.2727	10
11. Exchange of ideas with specialists, officers and progressive farmers + use of teaching aids	2.1818	11
2. Lecture + exchange of idesas with specialists, officers and progressive farmers	2.1454	12.5
13. Demonstration + exchange of ideas with specialists officers and progressive farmers	2.1454	12.5
14. Group discussion + exchange of ideas with specialists officers and progressive farmers	2.0090	14
III COMBINATION OF MORE THAN TWO MEVHODS		
1. Lecture + group discussion + demonstration	2.6636	1
2. Lecture + group discussion + field visits and study tours	2 3000	2
3. Lecture + group discussion + use of teaching aids	2.2188	3
4. Lecture + group discussion + exchange of ideas with specialists. officers and progressive farmers	2.0090	4

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Patterns of Psychological Tensions of College Students

Dinesh Kapil*

INTRODUCTION

The present study was conducted on 440 college students—both boys and girls, undergraduates and post-graduates—all in equal numbers on each of the four levels. Different kinds of students tensions were investigated in the Pilot Study conducted one 40 students of various levels concerned and the levels of different tensions were diagnosed and assessed in the Final Study conducted on 400 students on a five-point scale. The results obtained are interpreted and presented herewith.

The student community forms a very vital part of a society or a nation. In a way, the future progress and prosperity of a nation largely though indirectly depends upon the mental health of its students community of today. In other words, if the mental health of the student community of a nation is sound and comparatively free from unnecessary tensions. then they are easily expected to devote their physical and mental energies in the nation building activities. But in case their mental energy largely becomes tied up with petty tension of different kinds then it comes difficult to expect them to divert their energy to the larger interest of the society or the nation.

The present study is related to students tension in various forms like—personal, social and economic adjustment etc.

Tension appear to be due to the existing discrepancy between the students expectations and their actual realisations. Student tension seem to be the result of the conflict between the old and new values.

A United Nations Report in 1973 has this to say on unrest among the students : "Many students are disturbed not only by the inequities of wealth and privilege in the world, but are questioning the system of values and norms which are foundations of society and criticising the failure of adults to live up to the ideals that they set. The recent protests of students in several parts of the world are the symptoms of their reaction to that situation and to many of the absolute instituions of the society in which they live.[1]

"In its essential characteristics, student unrest is an acknowledgeable social phenomenon. First, it cannot maladjustment of students as a group with the society

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* The Hindu, April 30. 1973, p. 6.

* Prayag Mehta. The Indian Youth Emerging Problems and Issues, 1971, Somaiya Publications Pvt. Ltd., Bombay, pp. 49-50.

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they live. Second, because this maladjustment finds expression always at group level in various forms. Third, because it seems applicable with reference to the inner dynamics of social organization. Fourth, because it inheres revolution generating potential, once invested with right lead and imaginative ideology. Finally, because it may cause inmeasurable damage to social solidarity it no resolved in time.'"*

Objectives of Present Study :

The present study in an attempt to find out the nature of tensions among the different groups of college students. In order to be more clear, in this regard the following objectives have been kept in mind :

1. To find out if the patterns of tensions among the four groups of the students are significantly different. These groups are postgraduate boys, postgraduate girls, undergraduate boys and undergraduate girls.
2. Similarly, the second objective of the present research is to find out if there is a significant difference between the overall tensions of post-graduate boys and postgraduate girls taken separately.
3. The third objective of the present research is to find out if there is significant difference between the overall tensions of postgraduate boys and undergraduate girls.

Hypothesis to be Tested :

The following seven hypotheses are formulated for testing in the present study :

Major Hypothesis :

1. There is no significant difference in the overall accumulated tesions among the four groups of students—uudergraduate boys, undergraduate girls, postgraduate boys and postgraduate girls.

Minor Hypotheses :

2. There is no significant difference between overall accumulated tensions of the postgraduate boys and postgraduate girls.
3. There is no significant difference between overall accumulated tensions of the postgraduate boys and undergraduate girls.

Methodology of Present Research :

In order to investigate the various hypotheses of the present research, it was necessary to evolve a suitable technique. For this purpose it was found that interview schedule technique will be more appropriate.

Interview schedule helps to study the attitude of different respondents in an objective as well as close personal manner.

THE PILOT STUDY

The Actual Process of the Study :

First of all, an open ended interview schedule was constructed in order to find out that different kinds of student's tensions. Since it was an open ended interview

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schedule, the respondent gave free and open expression to their emotional tensions.

In this process about 50 students both boys and girls as well as postgraduate and undergraduate students were selected. On the basis of this investigation the final draft of the interview schedule was constructed.

Size of the Sample and its Procedure :

There were four hundred and fifty students selected in a semi-random manner for the present study. Out of them 50 students were taken in the pilot study and the remaining four hudred students taken for the final study.

These students belonged equally to both the sexes and both the levels of college education—postgraduate level and undergraduate level.

The actual classification of the students under study is given in the following table :

Table-1

	Boys	Girls	Total
Postgraduate	100	100	200
Undergraduate	100	100	200
Total	200	200	400

Colleges where from the present sample was drawn. The following colleges were selected for the study of student's tension :

1. Agra College, Agra.
2. Institute of Home Science, Agra.
3. R.B.S. College, Agra.
4. St. John's College Agra.

Data Collection and Statistical Analysis made : For this purpose, as a result of the finding of different areas of students tensions, ten important areas were selected These tensions areas were :

(i) Personal Emotional Problems (ii) Recurrent, Financial Difficulties (iii) Maladjustment in Family Life (iv) Lack of adequate communication with the members of the opposite sex (v) Difficulty in following new fashions (vi) Indifference of teachers (vii) Lack of employment opportunities (viii) Undue political influence in students affairs (ix) contradictory social values (x) Governments anti-student policy.

The students concerned who were approached for data collection were asked to rate the above tension area on a five-point scale. In this process they were requested to rate each area of tension in the light of tension towards that area actually prevailing in their mind at present. In other words, they were told to give a weight of 5 to the

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area in which they have maximum of tension and to give a weight of 1 (one) in the area of tension having minimum tension and the same way, a weight of 2, 3 and 4 to other areas according to the intensity of the areas concerned.

Presentation and Analysis of Data : After data collection, the next logical step in the present research was the presentation and analysis of the same. This was done hypotheses-wise. So in this regard first of all, the data related to the first hypothesis are presented below in table. For the sake of ready reference the hypothesis is also mention below :

MAJOR HYPOTHESIS

Hypothesis No. 1 : There is no significant difference in the overall accumulated tension among the four groups of students, undergraduate boys, undergraduate girls, postgraduate boys and postgraduate girls.

Table-2 : Showing the response of the four categories of students undergraduate boys, undergraduate girls, postgraduate boys and postgraduate girls in relation to their accunated tension in ten areas.

Areas	1	2	3	4	5	6	7	8	9	10	Total
Under-graduate boys	1625	1810	1643	1713	1976	1781	1571	1339	1765	1865	17729
Under-graduate girls	1551	1960	1480	1870	2061	1781	1822	1892	1933	1973	18329
Post-graduate boys	1718	1685	1582	1600	1850	1706	1525	1787	1690	1806	16949
Post-graduate girls	1505	1755	1290	1720	1945	1650	1565	1680	1820	1748	16678
Total	6399	7210	5995	6903	7832	6924	6883	7239	7208	7392	69685

Statistical Analysis of data : F-Ratio was calculated in order to find out the significance difference among the four groups of students in relation to their acumulated tensions.

Results : F-Ratio=3.76

Interpretation : The aboye value of F-Ratio is highly significant at 0 5 level. It clearly indicates that there is a significant difference in the pattern of tensions of these four groups of tensions.

Interpretation : Hypothesis No. 1 is rejected here at .05 level of confidence.

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MINOR HYPOTHESIS

Hypothesis No. 2 : There is no significant difference between overall accumulated tensions of the postgraduate boys and postgraduate girls.

Statistical Analysis of Data : C.R. value was calculated in order to find out the significance of difference between the postgraduate boys and postgraduate girls in relation to their accumulated tensions.

Table 3 : Showing the S.Ds. and Means of Postgraduate boys and Postgraduate girls scores and C.R. value also shown in the table.

	Means	S.Ds.	N	C.R. Value
Postgraduate boys	169.49	17.97	100	4.12
Postgraduate girls	166.78	25.35		

Results : C.R. value=4.12 significant at .01 level.

Interpretation : Since the above value of C.R. is significant at .01 level, the null hypothesis No. 3 is rejected here.

GENERAL FINDINGS

Nature of Patterns of College Students Tensions : An Overall View of the combined four groups of students – Boys and Girls Undergraduate and Postgraduates.

The analysis of data related to the college students tensions shows the magnitudes of their tensions as shown below in comparative rankings in descending order. Rank 1 showing maximum tensions while Rank 10 showing the minimum level of tension.

Ranks	*The Areas of Tensions in Descending Order*
1.	Lackof employment opportunities.
2.	Government's anti-students union policy.
3.	Undue political influences in student affairs.
4.	Contradictory social values.
5.	Teachers in different attitudes towards students and teaching.
6.	Lack of adequate communication in co-education system.
7.	Lack of adjustment in family life.
8.	Indecency in following new fashions.
9.	Personal emotional problems.
10.	Recurrent financial difficulties.

Maximum tension is found in lack of employment opportunities while minimum tension is found in recurrent financial difficulties.

GENERAL FINDINGS

Hypothesis No. 1 : (Major Hypothesis) Showing comparative ranking of different tensions for the four groups of college students under study :

Areas of tensions	Under-graduate boys Rank	Under-graduate girls Rank	Post-graduate boys Rank	Post-graduate girls Rank
1. Personal emotional problems	10	9	4	9
2. Contradictory social values	4	3	7	3
3. Recurrent financial difficulties	9	10	9	10
4. Lack of Adjustment in family life	7	6	8	5

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5. Lack of employment opportunities	1	1	1	1
6. Lack of adequate communication in co-education system	5	8	5	7
7. Indency in following fashions	8	7	10	8
8. Uudue political influence in student affairs	2	5	3	6
9. Teachers in different attitude towards students and teaching	6	4	6	3
10. Government's anti-students union policy	3	2	2	4

Maximum and Minimum Tension Areas :

1. A. In undergraduate boys minimum tension in = Personal emotional problems
   B. In undergraduate boys maximum tension in = Lack of employment opportunities
2. A. In undergraduate girls minimum tension in = Recurrent financial difficulties
   B. In undergraduate girls maximum tension in = Lack of employment opportunities
3. A. In postgraduate boys minimum tension in = Indecency in following new fashion
   B. In postgraduate boys maximum tension in = Lack of employment opportunities
4. A. In postgraduate girls minimum tension in = Recurrent financial difficulties
   B. In postgraduate girls maximum tension in = Lact of employment opportunities

Suggestions for further study : The problem of students tension is very deep and extensive. It needs further research in professional colleges and universities as well. Not only this but this research is to be extended to students of higher secondary stage as well.

Since, this nature of students tension is very complex and deep, it requires investigations through the use of projective techniques as well. It is because projective techniques are quite scientific and powerful tools or personality investigations.

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A Study of Leadership Behaviour of the Students in the Context of their Streams Sex and Level of Adjustment.

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The study was carried out to study Leadership behaviour of the student in the light of stream, sex and level of adjustment. It was also aimed to study trends of mean differences, main and interaction effect of there independent variables on the leadership behaviour of the students. A sample of 500 students was drawn with the help of computer by using Random Number Programme from the population of Higher secondary Schools situated in Ahmedabad city. A Leadership Behaviour Inventory constructed and standereised by thein vestigator, was used to get leadership behaviour scores of the students. An adjustment Inventory, constructed and standerdised by Parikh, J. C. and Patel, M. T., was used to get scores of adjustment. The independent variable, "Adjustment" was divided in to two levels-say high and low with the help of Q_3 and Q_1 respectively. The division of the three independent variables-streams, sex and level of adjustment, caused twelve groups $(3 \times 2 \times 2)$. To analyse the data $3 \times 2 \times 2$ factorical design was used. To find out trends of means ANOVA and Duncan's New Multiple Range Test was used. F-ratio calculated to test the hypotheses. It was observed that there was a significant mean difference among the means of treatment groups regarding their leadership behaviour. Out of 66 pairs of mean difference, 7 pairs were significant at 0.01 level and 10 pairs were significant at 0.05 level. It was also observed that out of three main effects, sex effect was significant at 0 05 level but the interaction effect was insignificant. It means that stream and level of adjustment were not effective variable on leadership behaviour the students.

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INTRODUCTION

The word 'to adjust' means 'to make suitable'. According to Science, 'the environment is ever changing.' According to Sociologists, the pattern of the society is also ever chaning. In changing situation one has to change by himself. And changing bimself by himself means to make suitable. As we know that leader has to make various situations suitable to continue himself as a leader in a group or among his followers. Hence, ability of adjustment and leadership behaviour might be related to each others. Consequently, it would be an important to evaluate leadership behaviour in the context of adjustment.

Lippitt, R., and White, R. K.,[1] studied leadership and group life experementally. They found that when frustrations were introduced experimentally, the Democratic groups responded by organised attacks on the difficulty, whereas the Authoritarian groups become disrupted through recriminations and personal problems. Nayar, E. S. K.,[2] studied certain personality characteristics of leaders among high school students and revealed that academic leaders are less ascendent and more submissive, while extra curricular (out door) leaders are more ascendent and less submissive. Kazmi, S. A.,[3] studied leadership in adolescent girls (14^+ to 16^+) in the context of some personality and physical variables and found that the adjustment-as a trait has initiative satisfactory relationship with leadership. Mishra, Y. N.[4] studied factors in student leadership activism (An empirical sociological study). Major factors were level of academic achievement, SES, attitude towards authority and the degree of political awareness and affiliation. The investigation found insignificant difference between high SES and low SES on leadership. Pal, J.,[5] studied personality factors of leaders and observed on significant difference between the adjustment patterns of the leaders and non-leaders. It is seen from the past studies that adjustment ability and leadership behavlour has relationship but non of them have tried to study with reference to streams of the study. The following were null hypothese of the study.

* *Hypotheses of the Study* :

1. There is no significant main effect of streams on leadership behaviour of the higher secondary students.

2. There is no significant main effect of sex on leadership behaviour of the higher secondary students.

3. There is no significant main effect of adjustment on leadership behaviour of the higher secondary students.

4. There is no significant interaction effect of stream and sex on leadership behaviour of the higher secondary students.

5. There is no significant interaction effect of stream and adjustment on leadership behaviour of the higher secondary students.

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6. There is no significant interaction effect of sex and adjustment on leadership behaviour of the higher secondary students.

7. There is no significant interaction effect among stream, sex and adjustment on leadership behaviour of the higher secondary students.

To study these HOs of the study the data collection work and testing the HOs, appropriate statistical method was used.

Procedure

Sample : To study the problem, sixteen different schools were selected randomly out of 45 higher secondary schools from the city of Ahmedabad. A separate stream wise and sex wise alphabetic list was worked out for each school selected in the sample. This listwas entered into a computer and 500 students were selected by random number programme. That is, stratified randomised sampling technique was used to draw a sample from the population.

Tool : An adjustment Inventory, constructed and standardised by Parikh, J. C. and Patel, M. T., 6 was used to get adjustment score. The said inventory contains 106 items and measures five different areas of adjustment say-Social, Vocational, Educational Family and Personal adjustment. It was standardised on popula:ion of Gujarat State. Its test-retest reliability after two and four month were 0·71 and 0·53 respectively. Its factorial validity is high. The Leadership behaviour Inventory, constructed and standerdised by Mulia, R.D., 7 was used to get leadership behaviour score. The inventory contains 50 items and measures five different areas of leadership behaviour. It was also standardised on populatiou of Gujarat State in 1987 for the higher secondary students. If is also a quite reliable and valid tool.

Data Collection : Both the tools were administered to the sample according to its specifications mentioned in the manual. Key-scoring was applied to obtain raw-score which were converted into standard scores with the help of tables given in their manual.

Analysis of the Data : From the adjustment Inventory, scores of adjustment were obtained. From the adjustment scores frequency distribution were prepared, which is presented in table : 1 with the help of frequency distribution, O_1 and O_3 were calculated.

Table-1 : F. D. with N, $\overline{X}$, Mdn, ^{6} S. D. and Q-valve on the Scores of Adjustment Inventory :

Scores	f
95—99	8
90—94	22

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85—89	38			
80—84	73			
75—79	68	M	=	70·07
70—74	70	Mdn	=	71·75
65—69	63	S. D.	=	13·86
60—64	47	Q_1	=	60·99
55—59	40	Q_3	=	80·60
50—54	28	Q	=	9·81
45—49	14			
40—44	15			
35—39	12			
30—34	2			
	500			

It is observed from the Table-1 that the F.D. of adjustment is very close to normal distribution. For dividing into two levels, high and low, the division was made on the basis of Q-value i.e. above Q_3 high level and below Q_1 low level. Hence, the subjects scoring above 79 were placed in high level group and the subject below 60 were placed in low level group.

Strategy of the Study : After a careful study of different designs to study Leadership behaviour in the context of independent variables, selected the factorial design of $3 \times 2 \times 2$. The factorial design was use multi-way analysis of variance statistical method, which provides indication on the main effect of each independent variable included in the stratagy and also provides interaction effects of the first order and the second order i.e., in pair of twos and threes. The multi-way analysis helps the researcher minimise the error variance. The other relative merit of this design reduces the chance error in the foregone pairs.

The independent variabies were divided into related levels. Stream (A) are purely a trichotomous variables say Science (A_1) Commerce (A_2) and Arts (A_3). Sex (B) is also purely a dichotomus variable say Boys (B_1) and Girls (B_2). The adjustment (C) variable was also divided into two levels, high Adjustment (C_1) and low Adjustment (C_2). The divison of the three independent variables into different levels caused twelve groups ($3 \times 2 \times 2$). The score cards of individual students were grouped into twelve groups.

For the sake of making equal number of observations in each of the group, through randomisation, 13 students in each cell were selected. After selection of equal number of students in each cell, the scores of leadership behaviour were taken down The N, M, S.D., ΣX and ΣX^2 were worked out. They are presented in Tables-2.

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Table-2 : N, M, S.D. and ΣX^2 of Twelve groups ($3 \times 2 \times 2$) Formed on the Bases of Stream, Sex and Adjustment.

Variables	Stream (A)	Science (A_1)		Commerce (A_2)		(Arts A_3)		Total
	Sex	Boys	Girls	Boys	Girls	Boys	Girls	
	(B)	(B_1)	(B_2)	(B_1)	(B_2)	(B_1)	(B_2)	
	Cell	$A_1B_1C_1$	$A_1B_2C_1$	$A_2B_1C_1$	$A_2B_2C_1$	$A_3B_1C_1$	$A_3B_2C_1$	
	N	13	13	13	13	13	13	78
	M	213·61	219·69	200·69	214·76	200·69	206 85	
	S.D.	21·14	15·37	22·68	14·23	15·10	13·42	
High Level	ΣX	2777	2856	2609	2792	2609	2689	16332
(C_1)	ΣX^2	599171	630512	530293	602268	526569	558549	3447362
	Cell	$A_1B_1C_2$	$A_1B_2C_2$	$A_2B_1C_2$	$A_2B_2C_2$	$A_3B_1C_2$	$A_3B_2C_2$	
	N	13	13	13	13	13	13	78
	M	186·15	203·08	196·46	203·54	191·54	187·92	
	S.D.	24·88	25·40	11·68	20·61	12·11	26·32	
Low Level	ΣX	2420	2601	2554	2607	2490	2443	15115
(C^2)	ΣX^2	458542	528785	503535	528327	478838	468099	2966127
Total of ΣX		5197	5457	5163	5399	5099	5132	31447
		10654		19562		10231		

Total. N=156 Total ΣX^2=6413489

Trends of Means : To study trends of means and to study significance of mean difference among the groups formed on the basis of three levels of stream, two levels of sex, two levels of adjustment, the *F*-ratio was worked out which is presented in Table : 3.

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Table : 3. Summary of anova of the scores of leadership behaviour of the 3×2×2 factorial level of stream, sex and adjustment.

Source of Variance	*S.S.*	*df*	*M.S.*	*F*	*Remarks*
* Between the groups	16003·30	11	1454·85	3·59	**
Main Effects					
A—Stream	1903·55	2	951·78	2·35	N.S.
B—Sex	1793·86	1	1793·86	4·43	*
C—Adjustment	9494·16	2	299·08	0 74	N.S.
Interaction Effects					
A×B	598·16	2	299·08	0·74	N.S.
A×C	1378·33	2	689·17	1·70	N.S.
B×C	153·98	1	153·98	0·38	N.S.
A×B×C	681·26	2	340·63	0·84	N.S.
* Within the group (Error)	58294·62	144	404·82		
* Total	74297·92	155			

	df	*F* at 0·05	*F* at 0·01
Table value of *F*	1 and 144	3·90	6·81
	2 and 144	3·06	4·75
	11 and 144	1·82	2·31

Table value of *F* with df 11 and df 144 at 0·05 level 1·82
at 0·01 level 2·31

The obtained *F*-ratio is 3·59 which is significant at both the level. Hence, there is significant difference among the means of the treatment groups. As there are twelve groups, there would be 66 pairs of mean differences. The largest difference between two means is 33·54 and the smallest is 0·03. In order to find out how many pairs of means show significance difference at 0·05 level and at 0·01 confidence level, the Duncan's Multiple Range Test was used. This test is easy to operate, when there are equal numbers of cases in each treatment group and within mean square (error) is available readily. Here, in each treatment group, there are 13 cases of M.S.W. is 404·82 (From (Table No. 3).

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Table-4 : Summary of Differences Between all the 66 pairs and Shortest Significant Ranges of 0·05 and 0·01 Levels of Duncan's Multiple range test for Stream, Sex and Adjustment based 12 Groups.

Code→ ↓		1 $A_1B_1C_2$	2 $A_3B_2C_2$	3 $A_3B_1C_2$	4 $A_2B_1C_2$	5 $A_1B_2C_2$	6 $A_2B_2C_2$	7 $A_2B_1C_1$	8 $A_3B_1C_1$	9 $A_3B_2C_1$	10 $A_1B_1C_1$	11 $A_2B_2C_1$	12 $A_1B_2C_1$	Short Significant Value of	
	Mean	186·15	187·92	191·54	196·47	200·08	200·54	200·69	200·69	206·85	213·61	214·77	219·69	0·05 level	0·01 level
$A_1B_1C_2$	186·15		1·77	5·39	10·31	13·93	14·39	14·54	14·54	20·70*	27·47**	28·62**	33·54**	R_2 15·13	20·33
$A_3B_2C_2$	187·92		—	3·62	8·54	12·16	12·62	12·77	12·77	18·93*	25·69**	26·85**	31·77**	R_3 15·47	21·18
$A_3B_1C_2$	191·54			—	4·92	8·54	9·00	9·15	9·15	15·31*	22·07*	23·23*	28·15**	R_4 16·28	21·76
$A_2B_1C_1$	196·46				—	3·62	4·08	4·23	4·23	10·39*	17·15*	18·31*	23·23*	R_5 16·83	22·22
$A_1B_2C_2$	200·08					—	0·46	0·61	0·61	6·77	13·53*	14·69*	19·61*	R_6 17·24	22·54
$A_2B_2C_2$	200·54						—	0·15	0·15	6·31	10·07*	14·23*	19·15*	R_7 17·55	22·83
$A_2B_1C_1$	200·69							—	0·00	6·16	12·92*	14·08*	19·00*	R_8 17·82	23·07
$A_3B_1C_1$	200·69								—	6·16	12·92*	14·08*	19·00*	R_9 18·03	23·28
$A_3B_2C_1$	206·85									—	6·76	7·92	12·84*	R_{10} 18·22	25·46
$A_1B_1C_1$	213·61										—	1·16	6·08	R_{11} 18·38	23·63
$A_2B_2C_1$	214·77											—	4·92	R_{12} 18·52	23·78
$A_1B_2C_1$	219·69												—		

M.S.W=404·82, N=13 SM=5·58

* Significant at 0.05, ** Significant at 0.01

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The shortest significant range of 0·05 and 0·01 levels were worked out by using table value of R_2 to R_{12} by multiplying in with SM = 5·58. The table No. 4 presents the summary of mean differences and the shortest ranges of 0·05 and 0·01 levels. The differences which are significant at 0·01 level are indicated by two stars and significans at 0·05 level are indicated by one star.

It is observed from Table No 4 that out of 66 pairs of mean difference 7 pairs are significant at both the levels, 10 pairs are significant at 0·05 level while 49 pairs are not significant at even ·05 level.

It is also observed that the largest difference between any two means is 33·54, which is in between $A_1B_1C_1$ and $A_1B_1C_2$. It is significant at both the levels of significance. The difference is in favour of $A_1B_2C_1$. Both these groups differ in their levels of sex and the level of adjustment. The $A_1B_2C_1$ group is of girls having high level of adjustment from science stream. The second largest difference between two means is 31·77, which is in between $A_1B_2C_1$ and $A_2B_2C_2$. It is significant at both the levels and in favour of $A_1B_2C_1$. Both these groups differ in their level of adjustment and the level sex is common. The third largest difference between two means is 28·62, which is in between $A_2B_2C_1$ and $A_1B_1C_2$. It is significant at both the levels and in favour of $A_2B_2C_1$. Both these groups differ in their levels of all the three independent variables. The shortest difference between two means is 0·00 which is in between $A_2B_1C_1$ and $A_2B_1C_1$. Hence, it could be concluded from the above analysis that the men differences are in favour of girls, science stream and high level of adjustment. It could also be concluded that girls from science stream and having high level of adjustment remains on the top of the leadership behaviour, while boys from science stream having low level of adjustment remains at the bottom of the leadeeship behaviour in the context of adjustment.

The Main and Interaction ; In order to find out main and interaction effects, the $3\times2\times2$ factorial design was used. On the basis of statistical figures of N. ΣX and Σ^2 of the individual groups presented in the table : 2. The *F*-ratio for main as well as for interaction effects were worked out. They are presented in Table : 3.

The Main Effect of Streams : It is observed from table : 3 that the obtained *F*-ratio of the main effect of streams is 2·35 which does not reach the table value of *F*-ratio with df 2 and df 144 at any level. Hence, the main effect is not significant. Consequently, the HO_1 is accepted. It means that there is no significant difference in leadership behavionr among the three groups formed on the basis of three streams namely Sciense, Commarce and Arts. Therefore, it could be concluded that the main effect of variable is not significant.

The Main Effect of Sex : It is observed from Table : 3 the obtained *F*-ratio of the main effect of sex is 4.43 which exceeds the table value of *F*-ratio with df 1 and df

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144 at 0.05 level. Hence, the main effect is significant. Consequently, the Ho_2 is rejected. It means that there is significant difference in leadership behaviour between two different levels of sex, namely boys and girls.

The Main Effect of Adjustment : It is observed from the Table-3 that the obtained *F*-ratio of the main effect of adjustment is 0·74 which does not exceeds the table value of *F*-ratio with df 1 and df 144 at any levels. Hence the main effect is not significant. Consequently, the Ho_3 is accepted. It means that there is no significant difference in leadership behaviour between two groups formed on the basis of two different levels of adjustment.

The Interaction Effect of Streams and Sex : It is observed from Table-3 that obtained *F*-ratio of the interaction effect between streams and sex is 0·74, which does not reach the table value of *F*-ratio with df 2 and df 144 at any level. Consequently, the Ho_4 is accepted. Hence, there is no significant interaction on leadership behaviour between groups formed on the basis of three different levels of stream and two different levels of sex.

the Interaction Effect of Streams and Adjustment : It is observed from table-3 that obtained *F*-ratio of the interaction effect between streams and adjustment is 1.70 which does not reach the table value of *F*-ratio with df 1 and df 144 at any level. Consequently, the Ho_6 is accepted. It means that there is no significant interaction on leadership behaviour between to groups formed on the basis of two different levels of sex and two different levels of adjustment.

The Interaction Effect Among Stream, Sex and Adjustment : It is observed from Table-3 that obtained *F*-ratio of the interaction effect among straem, sex and adjustment variables is 0·84 which does not reach the table value of *F*-ratio with df 2 and 144 at any level. Consequently, the Ho_7 is accepted. In means that there is no significant interaction among three variables on leadership behaviour.

CONCLUSIONS

1. There is significant difference among the means of treatment groups regarding their Leadership Behaviour.
2. The largest difference between two means is 33·54 which is significant at both the levels. The difference is in favour of girls having high level of adjustment and belonging to science stream.
3. The shortest difference between two means is Zero which is in significant. These groups are $A_3B_1C_1$ and $A_2B_1C_1$. They belongs to same level of adjustment and having same sex but blonges to different streams.

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4. As there are twelve groups, there would be 66 pairs of mean differences. Out of those 66 pairs seven pairs are significant at 0.01 level, 10 pairs are significant at 0.05 level and remaining pairs of mean differences are not significant at any level of significance.
5. The main effect of streams is insignificantly effective variable on leadership behaviour.
6. The main effect of sex is significantly effective variable on leadership behaviours. It means that there is significant mean difference in leadership behaviour of boys and girls. The difference is in favour of girls.
7. The main effect of adjustment is insignificant on leadership behaviour. It means that level of adjustment variable do not affects leadership behaviour.
8. There is no significant interaction on leadership behaviour between stream and sex, Streams and level of adjustment, sex and level of adjustment. These variables functions Independently on leadership behaviour.
9. There is no significant interaction among three independent variable say stream, sex and adjustment on leadership behaviour. These three independent variables when operated to gether function Independently without interacting each other.

It is our general observation that present leaders are thick skined. Mental disturbences, physical disturbences and psychological disturbences do not make any pose on their leadership. This study supports the general observation. Only sex-difference affects on leadership behaviour of the students.

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APRC : New Test Publication

Job Satisfaction Scale (JSS)

Dr. B. L. Dubey, Prof. K. K. Uppal and Dr. S. K. Verma

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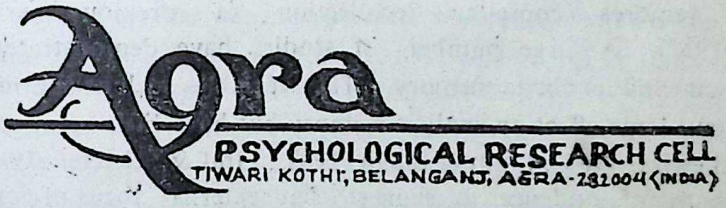

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The Effect of Locus of Control on Implicit and Explicit Memory for New Associations

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Present research was undertaken to determine the effect of locus of control on implicit and explicit memory. 50 undergraduate male students (25 inter-nally oriented and 25 externally oriented) selected on the basis of their score on Hindi adaptation of Liverant Roters I-E scale (Hasan, 1974) served as subject in the exteriment. The result clearly revealed that external locus of control has deterimental effect on explicit memory but has no effect on implicit memory. Findings were interpreted in term of the nature of implicit memory and deficient cognitive functionings associated with I-E locus of control.

INTRODUCTION

Implicit memory is revealed when performance on a task is facilitated in the absence of conscious recollection, explicit memory is revealed when performance on a task requires conscious recollection of previous experience (Graf & Schacter, 1985). A large number of studies have demonstrated a disociation between implicit and explicit memory. The variables such as subliminal preception, age, RI & PI have large effect on explicit memory but have little or no effect on implicit memory (e.g. Lewiki, 1985 ; Light & Singh. 1987 ; Graf & Schacter. 1987). There is a considerable body of evidence to suggest that external locus of control has adverse effect on learning and memory (e.g. Phares, 1986 ; Mandler, 1979 ; Ellis & Franklin, 1983 ; Alam, 1988). But these studies were within the domain of explicit memory, As for as implicit memory is concerned, no research has yet been conducted to examaine the effect of locus of control on implicit memory. Thus, present research is undertaken to study the influence of locus of control on implicit as well as explicit memory.

METHOD

Sample ; 50 undergraduate male students of Aligarh Muslim University from the age range of 17 to 20 years were randomly selected on the basis of their score on Hindi

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adaptation of Livtrant & Roters I-E Scale (Hasan, 1974). Thus there were two groups namely internal and external, each having 25 subjects.

Stimulus Material and Apparatus : The to-be-remembered materials were composed of 28 cue-target pairs consisting of common words that were selected from the Kucera and Frances (1967) norms. Each word was 5 to 7 letters in length and their mean frequency was 96 occurance per million. No word pair had pre-experimental association. The initial three letter stem of each target word had to be unique on entire, list, a pocket dictionary gave at least 5 alternative completion begining with the same stem, 20 cue-target pairs disingated as critical word pairs and remaining 8 pairs served as the practice and filler items. Another set of 15 word pairs was also selected according to the same criterion that served as distractor words during the test of implicit memory.

The apparatus used in this experiment was an electrically operated memory drum in which the timing device was so adjusted to allow each item to be exposed for 5 seconds with a regular interval of 2 second between the exposuse.

Test : A word compleation test was used to asses implicit memory, and explcit memory was tested by cued recall test. Half of the studied words (10) were tested on cued recall test and remaining half (10) words mixed with 15 distractor word pairs were tested on word completion test. Initial three letter stems were presented as cue in each test. The word completion test was given with the instructions to complete each cue with the first word that come to the mind while cued recall test was given with instruction to use the cues to help the recall of the words.

Procedure : Prior to Learning the list of cue-target word pairs, subjects learned a four-word pair list to familiarize him with the procedure and to reduce effect of recency, Subject was instructed to look at each word as it appeared. In order to induce a lower degree of elaboration, he was also required to generate a word that two words of a pair. The nature of test was not specified before study. After instructions and practice, the main list of cue-target word pairs consisting of 20 items, followed by 4 filler word pairs, was presented to the subject on a single trial. Immediately after presentation of last word, subjects received a word completion test either preceded of followed by a cued recall test in a counter-balancing order. In this way all the 50 subject irrespective of their group assignment were tested individually for both explicit as well as implicit memory.

RESULTS AND DISCUSSION

The mean recall performance of internally oriented subjects was significantly higher than the mean recall performance of externally oriented subjects. In contrast to recall, the performance of internally and externally oriented subjects did not differ significantly. Thus, it appears that external locus of control has determintal effect on explicit memory but has no effect on implicit memory for new associations. The first finding of the present research that is external locus of control have adverse effect on

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memory is consistant with the results obtained by Ducette & Wolk (1973) ; Leight & Eills (1981) ; and Alam (1988). These investigators also found that external locus of control deteriorate the memory.

The critical new finding is that the locus of control has no effect on implicit memory which may be interpreted in terms of cognitive activities associated with the internal and external orientation of the subjects. Externally oriented subjects are supposed to be deficient in cognitive functioning as compared with internally oriented subjects (e.g, Sanders, Halcomb, Fray & Owen, 1976). The finding lend support to the results obtained by Graf, Square, & Mandler (1984) and Khan (1989) who found that nefficient cognitive functioning have large effect on explicit memory but has no effect on implicit memory. Since implicit memory is not influenced by efficient and inefficient cognitive functioning, internal and external locus of control not affected the word completion performauce.

Table—1 : Showing mean, S. D. and t-value.

Groups	Type of Memory Measure					
	Word completion (Implicit memory)			Cued-recall (Explicit memory)		
	N	Mean	S. D.	N	Mean	S.D.
Externally oriented	25	6·32	3·02	25	4·28	2·87
Internally oriented	25	7·12	2·52	25	6·80	1·98
	t=1·02, P=NS			t=3·6, P<·01.		

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Learning Abilities as a Function of Creativity and Attention Span in Children

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A factorial design of 2×2 *was envisaged to study the effect of Creativity and Attention span on learning abilities of children.* 250 *subjects* (*Ss*) *were administered Verbal test of Creative thinking and the test of Attention span to delineate high and low groups on Creativity and Attention span. Final sample conststed of forty four subjects, eleven in each of the four cells of factorial design. To the final sample Learning Ability test was administered and indices of performance were time taken and number of trials taken by the subject for the completion of the test. Results showed a positive relationship between creativity, attention span and learning in children.*

INTRODUCTION

Learning is the establishment of a connection or association between a stimulus and a response, where prior to learning no such association existed. Learning is the process by which an activity originates or is changed through reacting to an encountered situation provided that the characteristics of the change in the activity cannot be explained on the basis of native responses, tendencies, maturation or temporary states of the organism like fatigue and drugs (Hilgard and Bower, 1966). The learning process in a child is affected by his surroundings, the type of experience he is exposed to. Apart from the various environmental factors like home environment (Bennett, 1974, Schwartz, 1976), teacher and training (Ray, 1974 & Miller, 1975), intelligence (Schwartz, 1976), motivation, reinforcement and repetition (Woodworth & Marqvis, 1963) learning is affected by creative abilities and by the attentive nature present in the child. According to Arieti (1976) learning capacity of a creative thinker is greater, as he is self-confident, he s more open to new experiences feeling good about one self (a sign of good mental

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health) allows the creative person to permit more and varied experience to enter directly into consciousness. A creative person is possessed with a continuous freshness of experience and uses this stock of information while working on creative processes." Apart from being creative a person should possess ability to pay attention towards the task he is attending to.

Attentional behaviour occurs when a child selectively gives heed to a particular thing or happening and seeks, as it seems, to hold on to it. The typical child is exposed to a very complex set of events during any given day. Only a small amount of information we encounter is attended to and processed carefully (Neisser. 1967). Basic to learning is the ability of a child to pay attention to his task. So, it can be contented that both creative abilities and attentional behaviour of a child make him a successful learner in life.

Studies have supported that there is a positive relationship between learning and high creativity (Passi, 1971, Sandifer, 1976, Cakhar, 1975, Thompson, 1977 and Turner, 1978). Similarly, there is substantial research literature to support a positive relationship between learning and attention span (Kim, 1975, Lubus, 1975, Ellis 1976 and Shoom, 1977). It can be concluded that as creativity and attention span are both related to learning, children with high creativity, and high attention span can learn much more than other children who are low on creativity as well as attention span.

Aims and Hypotheses : The present study was undertaken to study the learning abilities in children and how factors like creativity and attention span affect the learning process in children. Research on learning continues at an accelerating pace and has expanded in number of directions. The significance of the present study lies in the fact that learning is an important aspect of life, throughout life learning principles are applied in the acquisition of language, to educational programmes and to modify undesirable attitudes and behaviours in growing children. Learning is the most important part of our life, it is necessary to make an investigation on the development of learning abilities in children and what are the factors those affect its development. The present study will help parents, teachers and all other individuals who are working for the welfare of children, to know that what sort of factors enhance the development of learning in children. And thus they will be able to provide children with appropriate environment to develop their learning abilities.

Hypotheses : The following hypotheses were put forth :

1. *Learning and Creativity* : Children with high scores on creativity will perform better on learning tasks as compared to children with low scores on creativity".

2. *Learning and Attention span* : "Children with high attention span will perform better on learning task as compared to chidren with low attention span."

3. *Interactive Effect of Creativity and Attention span on Learning tasks* : "Children with high scores on creativity and attention span will perform better than children with low scores on creativity and attention span on learning tasks".

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METHODOLOGY

Design : A factorial design of 2×2 was used for the present study. The design consisted of two variables creativity and attention span. The four factors in each cell were : (i) high creativity high attention span, (ii) high creativity low attention span, (iii) low creativity high attention span, and (iv) low creativity low attention span.

Sample : Sample consisted for 250 Ss ranging between the age group of 8-10 years. This sample was administered the Verbal Test of Creative Thinking (Baqer Mehdi, 1973) and Test of Attention Span to delineate high and low groups on creativity and attention span Verbal Test of Creative Thinking (Baqer Medhi, 1973) is meant to identify creative talents in children. The test consists of four parts namely-consequences test, unusual uses test, similarity test and product improvement test. The total time for the completion of the test was 48 minutes. Scoring was done for each activity on basis of fluency, flexibility and originality. Test of Attention span included use of tachistoscape and cards. There were ten trials for each card. The right and wrong responses of the Ss were recorded. Scoring was done by calculating the percentage of correct responses for each card.

To delineate high and low subjects on creativity and attention span the criteria mean $\pm \frac{1}{2}$ SD was applied. The final sample consisted of 44 Ss, eleven in each cell of the factorial design.

Data Collection : To the final sample of forty-four subjects Test of Learning Ability was administered. The test consisted of two parts Massed and Spaced learning Indices of performance were time taken and number of trials taken by the subject for the completion of the test.

RESULTS

The raw data was analysed in the form of Mean, SD, *t*-ratio and Analysis of Variance. *t*-ratios were calculated between the four groups and showed statistically significant results (See Table-I).

Table-I : *t*-ratios For Massed and Spaced Learning Tasks :

Variables.	Massed Learning		Spaced Learning	
	Time taken	Number of trials	Time taken.	Number of trials
1. High Creativity High Attention Span and High Creativity low Attention span.	4·35**	4·18**	5·33**	2·35*

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2. High Creativity High Attention span and Low Creativity High Attention span.	3·70**	3·70**	6·49**	3·44**
3. High Creativity High Attention span and low Creativity Low Attention span.	6·13**	7·85**	9·59*	7·34**
4. High Creativity Low Attention span and Low Creativity High Attention span.	·84	·32	1·20	·93
5. High Creativity Low Attention Span and Low Creativity Low Attention span.	2·27*	3·30*	5·65**	5·27**
6. Low Creativity High Attention span and low Creativity Low Attention Span.	3·11**	3·54**	4·86**	4·59**

* p ∠·05 ** p ∠·01

ANOVA was used for the factorial design of the study. Tables II and III give details of the main effects and the interactive effects of the variables.

Table-II : Analysis of Variance for Massed learning task :

Variables	Time Taken				Number of Trials		
	df	SS	MSs	*F*-value	Ss	MSs	*F*-value
TSS	43	503900·00	11718·600		146·795	3·414	
WSS	40	225955·90	5648·897		62·545	1·565	
1. Creativity	1	104734·60	104734·60	18·541**	38·205	38·205	24·433**
2. Attention span	1	161619·70	161619·70	28·611**	46·023	46·023	29·433**
Creat. × Att. span	1	11589·720	11589·720	2·052	·023	·023	·015

** p<·01

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Table-III : Analysis of Variance For Spaced learning Task :

Variables	Df	Time Taken Ss	MSs	*F*-Value	Number of Trials Ss	MSs	*F*-Value
TSS	43	365188·3	8492·750		118·795	2·763	
WSS	40	88032·81	2200·820		42·364	1·059	
1. Creativity	1	162044·70	162044·70	73·629**	42·023	42·023	39·678**
2. Attention Span.	1	114627·60	114627·60	52·084**	27·841	27·841	26·288**
Creativity × Attention Span.	1	484·112	483·112	·220	6·568	6·568	6·202*

* $p < ·05$ ** $p < ·01$

Major findings of the study can be summarized as follows :

1. Creativity has a significant effect on learning with high creative group scoring higher as compared to low creative groups on learning task.

2. Attention span was found to be positively related to learning with subjects scoring high on attention span performing better on learning task as compared to subjects scoring low on attention span.

3. High creativity high attention span group performed better than low creativity low attention span group, thus bringing about the interactive effect of creativity and attention span on learning in children.

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DISCUSSION

Discussion of the results is done in the form of hypotheses put-forth earlier and relevant researches which support the present results are also discussed.

I. *Learning and Creativity*: It was hypothesized earlier that 'children scoring high on creativity will perform better on learning task as compared to those scoring low on creativity'. Results of the present investigation lend support to this hypothesis. Statistically significant F-values (see Tables II and III) and t-ratios (see Table-I) bring about significant superior performance of subjects scoring high on creativity as compared to those scoring low on creativity on learning task. The factors which could have accounted for the difference in the performance of high and low creative children could be as follows :

(1) *Intellectual Ability*: The literature of Psychology has long identified the relationship of learning abilities with cognitive competence. Studies indicate that the best adjustment, superior learning abilities and greatest achievement is obtained by those, whose intelligence falls in the higher ranges of bright normal to superior (Terman & Oden, 1959 ; Klausmeir & Laughlin, 1961, and Kennedy, 1975). Further studies have brought about a positive relationship between creativity and intelligence (Jackson, 1962), It could well be possible that children with high creative scores possess superior intellectual level and are likely to perform superior than children with low creativity scores.

(2) *Divergent Thinking*: According to Guilford (1950) divergent thinking enables an individual to seek variety. It goes beyond the obvious and apparent, considering several possible alternatives to a solution of a problem. Studies have shown that divergent thinking is positively related to learning (Trickett, 1976) and Zussman, 1976). In the present study, the nature of learning task used was such that divergent production operations are reflected behaviourally during learning process. It can, thus be contented that greater presence of divergent thinking in high creative group accounts for their superior performance on learning tasks as compared to low creative groups.

(3) *Cognitive Style*: Lastly, the factor that can be advanced in an effort tof account for this deficiency in learning abilities of children with low creativity is that o cognitive style. Style refers to the manner in which a child makes an approach towards the task. It was observed that children with high creative scores were able to grasp the task much faster, were sufficiently task oriented and were selectively responsive to the particular details of the learnlng task. They were found to be readily interested in the task as compared to the low creative groups who were less attentive and less eager to perform on the learning task. One can thus conclude that high creativity groups are superior performance on learning task due to the presence of higher intellectual compe-

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tence which enables them to deal with the learning task appropriately, presence of divergent thought production and cognitive style that facilitates in the development of learning abilities.

II. *Learning and Attention Span* : Results revealed a positive relationship between learning and attention span, thus accepting the hypothesis stated earlier that 'children with high attention span will perform better on learning task as compared to children with low attention span'. Statistically significant effect of attention span on learning task was revealed by F-values (see Tables-II and III). The researches Kim (1975), Lubus (1975), Ellis (1976) and Shoom (1977) support the view that children high on attention span are capable of showing superior performance on learning tasks than children with low attention span. The discussion focuses on some relevant factors which could have accounted for the differences in the performance of children on learning tasks with high and low attention span.

(1) *Motivation* : Motivation is a characteristic of early life that helps young children to achieve their goals and get acquainted with the world (Boring, 1945). Further studies have shown that highly motivated children or those with high achievement orientation and perform better on learning task than those with low level of motivation (McCleiland *et al.*, 1953, Rosen, 1956 ; and Myers, 1965). In the present study, it was observed by the investigator that children with low attention span needed motivation while performing the learning task as compared to children with high attention span. Motivation in form of praise and encouragement can stimulate a child to pay more attention and thus increase the learning. Therefore, the level of motivation in a child determines the degree to which he would attend to a learning task on hand and his efficiency in mastering that particular task.

(2) *Interest* : Another factor accounting for the differences in the performance of high and low attention span children could be interest in learning. According to Woodworth & Marquis (1963) when an individual finds an object for a task interesting, this interest of his is a motive leading to active dealing with the task. It was observed in children with high attention span that as their interest and concentration on the learning task was more, they showed superior performance as compared to children with low attention span. Interest in various tasks leads to greater learning abilities in children.

III. *Interactive Effect of Creativity and attention Span on Learning task* : The results obtained from ANOVA for interactive effect between creativity and attention span did not reach the level of significance (see Tables II and III). However, for spaced learning task for number of trials taken the interaction result was marginally significant at .05 level of significance (see Table-III). Further t-ratios calculated on the four different cells of factorial design revealed significant difference between the performance of the

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group (see Table-I). Therefor it can be concluded that when two variable of high creativity and high attention span interact with each other they seem to have facilitative effect on learning and enhance the development of learning abilities in children.

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EXECUTIVE PERSONALITY INVENTORY (EPI)

B. L. Dubey, P. Dwivedi and S. K. Verma

(Measures Emotional Instability, Depression, Psychoticism, Extroversion Introversion, and Social Desirability).

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Vocational Interests of Adolescents as a Function of Their Socio-Economic Status

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INTRODUCTION

Vocational interests have been in centre of research for several decades. Recently, the study of vocational interests has attracted many theorists and researchers because it has been believed that vocational interests or preferences should predict the vocational choices and attainment of success in particular vocation by an individual. Moreover, there has been a very strong belief that vocational interests should predict the degree of individual's satisfaction and success in a particular job. Vocational interests are expected to play a significant role in life adjustment in general and vocational adjustment in particular. A number of research studies have been conducted in India and abroad to explore the relationship between vocational interests and psycho-socio variables. However, a little effort has been made to examine the influence of social economic status on the vocational inierests of school and college going students. A review of related studies reveals rhat the results have been inconsistent and the problem needs further investigation (See Nelson. 1931, Strong, 1943, Ginzberg *et. al.* 1951; Elzabeth, 1955 ; Reddy, 1977 ; Yadav, 1979 ; Tara, 1980 ; Shashi Prabha, 1982 ; Ansari *et. al.*, 1984 and Raina, 1987). The present study, therefore, was designed to analyse the vocational interests of adolescents as a function of their socio-economic studus. Further inview of the trend of the findings of majority of the researches, it was hypothesized that there would be significant differences among adolescents belonging to high, average and low socio-economic s tatus with respect of their interest in ten vocational areas as measured by Kulshreshtha's Vocational Interest Record (VIR).

METHOD

The present ex-post-facto study was conducted through descriptive survey method of research.

Sample : The sample of the study consisted of 386 male and female students studying in XI & XII classes in science, arts and commerce streams. The sample was randomly drawn from seven higher secondary institions of District Alwar (Rajasthan).

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Tools : The following two tools were used to collect the data for the present study :

1. *Socio-Economic Status Scale Questionnair* : In order to assess the socio-economic status of the subjects, socio-econmic staus scale questionnaire of Jalota, Pandey, Kapoor and Singh (1979) was used. It contains 12 items which seek information about the following component variables (i) parental occupation (ii) parental education and education of sisters and brothers, (iii) economic index and (iv) cultural level. Reliability of the SES scale questionnaire was estimated by the test-retest method, with an interval one of month, the correlation co-efficient was found to be, .89. The validity of the of questionnaire was established by correlating its scores with the scores of Pandey's original scale. The co-efficient of correlation came out to 0.92.

Vocational Intrerest Record (VIR) : Vocational interest of adolescents in various areas was measured by administering Vocational Interest Record (VIR) of S. P. Kulshreshtha, (1985) The record purports to measure vocational interest in 200 vocations belonging to ten different areas ; (1) literary (2) scientific, (3) executive, (4) commercial, (5) constructive, (6) artistic, (7) agriculture (8) persuasive, (9) social and (10) house-hold.

The test-retest reliability coefficient was obtained 0·69 with a time interval of 15 days. Thr validity of the record was established by correlating its scores with parent's, teacher's and friend's opinion about the interests of the pupils and coefficient of validity was found to be 0.81, 0.83 and 0.85 respectively. The coefficient of validity was found to be 0.74 when this record was validated with Labh Singh's Vocational Interest Inventory.

Procedure : Socio-Economic Status Scale Questionnaire (Jalota, Pandey, Kapoor and Singh) and Vocational Interest Record (S. P. Kulshreshtha) were administed to the sample in accordance with the predecided schedule. Prior to the adminstration of the tools subjects were mentally prepared to take the test material and were told the procedure of recording their responses. On completion of both questionnaire and record, scoring was done with the help of standard eeys prepared by the authors. Then classification of the subjects into three groups based on their socia-economic status scores was done by applying mean $\pm$ SD formula. After forming the three groups; HSES, ASES and LSES, scores of Vocational Interest Record were organised accordingly.

Statistical Analysis : For making the comparison of Vocational Interests of the three socio-economic status groups of adolescents in ten different vocational inteeest areas, means and standard deviations were calculated. Then '*t*-values were found out in order to know the significance of differences in various pairs of means.

RESULTS

The obtained results have been provided in the following section :

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Table-1 : Comparison of Vocational Interest of High, Average and Low Socio-economic Status Groups in Literary Field.

Group	N	M	SD	Comarison groups	't'
HSES	76	8·40	4 64	HSES-ASES	0·00NS
ASES	244	8·40	5·03	HSES-LSES	2·59**
LSES	66	6·39	4·59	ASES-LSES	3·05**

NS : Not Significant at 0·05 level. * : Significant at 0·01 level.

Table-1 reveals that thhere is no significant difference between adolescents of high scaio-economic status and average socio-economic status groups with regard to their vocational interest in literary field. However, adolescents of high socio-economic status group seem to have significantly more vocationol interest in this field as compared to adolescents of low socio-economic status groups. Adolescents of average socio-economie background also appear to have significantly more vocational interest in literary area than their counterpart adolescents of low socio-economic background

Table-2 : Comparison of Vocational Interest of High, Average and low Socio-economic Status groups in Scientific Field.

Group	N	M	SD	Comparison Group	't'
HSES	76	11·76	3·99	HSES-ASES	0·79NS
ASES	244	11·34	4·31	HSES-LSES	2·37*
LSES	66	9·87	5·29	ASES-LSES	2·07*

NS : Not Significant at 0·05 level. * : Significant at 0·05 level.

Table-2 shows that adolescents coming from high socio-economic status as well as from average socio-economic status have greater magnitude of vocational interest in scientific field than adolescents coming from low socio-economic status. But the adolescents coming high and average socio-economic status do not exhibit any significant difference between their mean scores of vocational interest in scientific field. It may be asserted that adolescents of high and average socio-economic status groups have similar level of vocational interest in scientific area.

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Table-3 : Comparison of Vocational Interest of High Average and Low Socio-economic Status Groups in Executive Field.

Group	N	M	SD	Comparison Groups	't'
HSES	76	12·86	5·02	HSES-ASES	1·12 NS
ASES	244	12·13	4·89	HSES-LSES	1·24 NS
LSES	66	11·76	5·39	ASES-LSES	0·53 NS

NS : Not significant at 0·05 level.

Table-3 indicates that adolescents belonging to high, average and law socio-economic status do not differ significantly from each other with respect of their vocational interest in executive field. Yet the trend of the means shows that adolescents of of high and average socio-economic status have a little higher level of vocational interest in executive area than the adolescents of low socio-economic status group.

Table-4 : Comparison of Vocational Interest of High Average and Low Socio-economic Status Groups in Commercial Field.

Group	N	M	SD	Comparison Groups	't'
HSES	76	9·18	5·02	HSES-ASES	1·58 NS
ASES	244	8·15	4·66	HSES-LSES	1·91 NS
LSES	66	7·63	4·63	ASES-LSES	0·88 NS

NS : Not significant at 0 05 level.

Table-4 discloses the fact that adolescents' vocational interest in commerce field does not seem to be influeneed by variation in their socio-economic status as no significant differences were found to be in the means of vocational interest in commerce field. An inspection of the mean scores of vocational interest of the three socio-economic status groups, however, reveals that adolescents of high and average socio-economic status have slightly more vocational interest in commerce related occupations than the

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adolescents of low socio-economic status. Also, adolescents of average socio-economic status have more likings for commercial vocations than the adolescents of low socio-economic status group.

Table-5 : Comparison of Vocational Interest of High Average and Low Socio-economic Status groups in Constructive field.

HSES	N	M	SD	Comparison Groups	't'
HSES	76	6·48	4·35	HSES-ASES	1·75NS
ASES	244	7·46	4 06	HSES-LSES	0·34NS
LSES	66	6·30	3·84	ASES-LSES	2·15 *

NS : Not significant at 0·05 level. * : Significant at 0·05 level.

Table-5 clearly indicates that adolescents of average socio-econmic status appear to have significantly greater interest in vocations of constructive type than the adolescents of low socio-economic status. But adolescent of high socio-economic status do not show significantly higher or lower level of vocational interest in constructive field than adolescents of average and low socio ecnomic status groups.

Table-6 : Comparison of Vocational Interest of High, Average and Low Socio-economic Status Groups in Artistic Field.

Group	N	M	SD	Comparison Groups	't'
HSES	76	10·18	4·78	HSES-ASES	1·19NS
ASES	244	9·44	4·58	HSES-LSES	3·36 **
LSES	66	7·56	4·51	ASES-LSES	2·99 **

NS : Not Significant at 0·05 level.** : Significant at 0·01 level.

It may be noted from Table 6 that adolescents of high and average socio-econoic status have similar level of vocaional interest in artistic field. But the adolescents of both high and average socio-economic status certainly have significantly greater mean interest in rhe vocations of artistic nature.

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Table-7 : Comparison of Vocational Interest of High, Average and Low Socio-economic Status Groups in Agriculture Field.

Groups	N	M	SD	Comparison Groups	't'
HSES	76	8·48	4·86	HSES-ASES	1·35NS
ASES	244	9·33	4 71	HSES-LSES	0·42NS
LSES	66	8·84	5·30	ASES-LSES	0·68NS

NS : Not significant at 0·05 level.

Table-7 soows that there are no significant differences in the mean vocational interest of adolescents coming from high, average and low socio-economic status so far agriculture field is concerned. This may be interpreted to mean that adolescents of diffr-rent socio-economic background have similar inclinations towards vacations related to agriculture area.

Table-8 : Comparison of Vocational Interest of High Average and Low Socio-economic Status groups in Persuasive Field.

Groups	N	M	SD	Comparison Groups	't'
HSES	76	10·69	4·41	HSES-ASES	0·81NS
ASES	244	10·22	4·58	HSES-LSES	2·21 *
LSES	66	9·50	4·79	ASES-LSES	1·09NS

NS : Not Significant at 0·05 level. * : Significant at 0·5 level.

Table-8 reveals that thete is a significant difference between adolescents of high and low socio-economic status adolescents with regard to their vocational interest in persuasive field. The mean difference is in favour of adolescents of high socio-economic status group. It suggests that adolescents of high socio economic status have significantly more vocational interest in persuasive vocational field. However, adolescents of high and average, and average and low socio-economic status groups do not exhibit any significant difference in their mean vocational interest in persuasive field.

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Table-9 : Comparison of Vocational Interest of High Average and Low Socio-economic Status Groups in Social Field.

Group	N	M	SD	Comparison Groups	't'
HSES	76	11·44	4·02	HSES-ASES	0·02NS
ASES	244	11·43	4·75	HSES-LSES	0·56NS
LSES	66	11·03	4·56	ASES-LSES	0·62NS

NS : Not significant at 0.05 level

Table-9 indicates that adolescents of high, average and low socio-economic Status are equally interested in vocations of social field.

Table-10 : Comparison of Vocational Interest of High Average and low socio-economic Status Groups in Household Field.

Group	N	M	SD	Comparison Groups	't'
HSES	76	9·70	4·88	HSES-ASES	1·08 NS
ASES	244	10·39	4·74	HSES-LSES	0·05 NS
LSES	66	9·66	5·03	ASES-LSES	1·06 NS

NS : Not significant at 0·05 level.

It may be observed from table-10 that on 't' value is found to be significant even at 0.05 level of signiffcance. This fact clearly suggests that adolescent of high, average and low socto-economic status do not have differential vocational interest in household. In other words, vocational interest in household field is not significantly affected by socio-economic status of adolescents.

DISCUSSION

There are several studies which exhibit that vocational inserts are affected by socio-economic status to a considerable degree (See, Strong, 1243 : Ginzberg *et al.* 1951 ; Reddy, 1977 ; Yadav, 1979 ; Shahi Prabha, 1982). The findings of the present study also indicate that interest of adolescents are affected by their socio-economic status in

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five vocational areas viz. literary, scientific, constructive, artistic and persuasive. In rest of the vocational fields, socio-economic status of the adolescents does not appear to have any significant bearings. These vocational areas are : executive, commercial, agriculture, social and household. The results of the present study get some support from the study conducted by Ansari *et al.* (1984) which concludes that demographic variables such as economic status and father's occupation could only determine partially occupational preferences. The results of the study seem to be justified in the light of the rationale that an individual belonging to high socio-economic status definitely aspires for those occupations in which a person gets good salary and prestige. On the otherhand, individual belonging to low socio-economic status aspires according to their status and position in the society.

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Teachers' Effectiveness as Related to Teachers Sex, Socio-Economic Status and Area.

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Teacher is a nation builder. He can help a lot in shaping the destiny of a country. It is his classroom teaching which makes the carrier of the students. An effective teacher can influence the students throughout their life, and it is difficult to tell where his affect stops. In operational terms, an effective teacher is he who has clear concept of the subject-matter, ability to write clear objectives for his course, ability to organise learning materials, ability tocommunicate his knowledge to the students successfully and deal with classroom situations. But simply these characteristics may not delineate the profile of the teacher. There may be many more characteristics and many more other variables linked with them. After all, teacher is also a product of its culture and social environment. His effectivity may depend on various factors.

The investigators like Howsam (1960), Barr and others (1961), Prasad (1970), Debnath (1971), Pandya (1972), Kaul (1972) and Gupta (1976) tried to identify the effective-teachers. They specified various characteristics of effective teachers, linked with personality and professional traits. Witty (1947) Biddle and Ellena (1964), Start (1966), Williamson (1967) and Anderson (1969) came out with findings that teachers' effectiveness depended on variables like sex, and other different non-cognitive personality factors. Dosajh (1956). Dave (1966), Samontaroy (1971). Sharma (1971), Nair (1974), Sharma (1976), Grewal (1976), Malhotra (1976), Singh (1976), Dasgupta (1977), Shashikala (1978) and Sharma (1978) have tried to determine the relationship between the various correlates and the teachers' effectiveness. Studies of all the researchers could not provide conclusive findings. In some cases there was found significantly positive correlation. in some cases positive but not significant and some cases negative correlation. Further these variables may be affecting the teachers' effectiveness differently in difference cultural set up. Due to this inference is is felt that their is need to take up studies to findout if the variables like teachers sex, socio-economic status and area (urban or rural) affect his classroom teaching.

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Objectives

The study was conducted with following objectives in view :

(i) to compare teachers' effectiveness scores of male and female teachers ;

(ii) to compare teachers' effectiveness scores of the teachers belonging to urban and rural area ;

(iii) to determine the degree of relationship between the sources of teachers' effectiveness and socio-economic status of male and female teachers belonging to urban and rural area separately.

METHODOLOGY FOLLOWED

(*a*) *Sample* : The study was a survey conducted on a sample of teachers from different strata, with a view to compare their effectivity. Multistage random sampling procedure was followed. The sample consisted of 333 teachers, both male and female (195 urban and 135 rural teachers) from 12 urban and 10 rural intermediate colleges located in Varanasi, Gorakhpur and Jaunpur districts of Eastern U. P. The sample also included the principals of the Colleges from where these teachers were selected and all students taught by these teachers.

(*b*) *Tool Used* : In order to conduct the study following tools were administered :

(i) The teachers' Effectiveness Rating Scale was locally prepared. The scale was having face validity and inter-observe reliability of 0·81 on Scott's reliability coefficient.

(ii) The Kulshrestha SES (Urban and rural) was used. The reliability and validity coefficients of urban scale is 0·87 and 0·57 to 0·85 and 0·91 respectively.

(*c*) *Data Collection* : The data were collected by administering the tests to the selected sample of the teachers.

RESULTS AND DISCUSSION

The scores of the teachers of different categories were statistically analysed in order to find out the significant differences in the mean scores of teachers. The significance of the different categories of teachers on the Teachers' Effectiveness Rating Scale are given in Table-I and II.

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Table-I : Mean, S. D. and C. R. Value of Teachers' Effectiveness Scores of Male and Female Teachers.

Value	Male Teachers	Female Teachers	Value of C. R.
N	230	100	0·80, insignificant at ·05 level.
M	157·85	156·40	
S. D.	14·04	1·.54	

The Table-I shows, the mean scores of male and female teachers on the Teachers' Effectiveness Rating Scale differ insignificantly. The value of C. R. is 0·80, which is insignificant at ·05 level. The difference in the mean scores of nale and female teachers has appeared due to chance.

The scores of male and female teachers on the Effectiveness Rating Scale were found to be above 120 (out of 200). Teachers of both sexes appear to be equally effective in their job.

Table-II : Mean S. D. and C. R. Value of Teachers' Effectiveness Scores of Urban and Rural Teachers.

Value	Urban Teachers	Rural Teachers	Value of C. R.
N	195	135	·86, insignificant at ·05 level.
M	156·72	158·43	
S. D.	14·84	13·94	

The Table-II shows the value of C. R. (·86) between the mean effectiveness scores of urban and rural teachers is not significant at ·05 level. This indicates that the teachers belonging to urban and rural areas show similar effectiveness in their classroom. The area, it shows, is not related to teachers' effectiveness. It has a connotation that urban or rural setting do not have different cultural setting to change the effectiveness of the teachers.

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Table-III : Mean, S.D. and 'r' value of Teachers' Effectiveness scores of Urban and Rural Teachers.

Value	N	M	S. D.	Value of 'r'
Urban Teachers	195	156·72	14 84	+0·3339
Rural Teachers	135	158·43	13·94	+0·1009*

* Insignificant at ·05 level.

The Table III shows the value of correlation coefficient for the scores of urban teachers on the Effectiveness Scale and SES came to be +0·3339. It reveals that the degree of relationship between these variables is moderate and positive. In further shows the significant correlation between them at ·05 level. Better socio-economic conditions help in the promotion of professional group. Teachers who are financial well off can easily acquire books and literature etc., related with their profession.

In case of rural teachers the amount of correlation co-efficient for the scores on the Teachers' Effectiveness Rating Scale and Socio-Economic Status Scale (Rural) came to be +0·1009, insignificant at ·05 level. It suggests positive relationship between these variables. Family status or self status does help in the growth of various facets or personality, e.g., dominance etc., Parent's education, Occupation and Income affect teaching ability of the individuals.

Studies on teachers' effectiveness and socio-economic status have also revealed positive but low relationship. Dave (1966) found positive but low (+0 203) correlation between the success of teaching ability and socio-economic status.

CONCLUSION

The variable of socio-economic status affects the teachers' effectiveness in the classrooms. But sex of the teacher and the area from which teacher belongs (rural or urban) does not influence the teachers' effectiveness in the class room.

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A Study of Attitudes of A. M. U. Schools teachers towards their Profession in relation to Sex, teaching experience and academic Qualification.

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The study was designed to investigate attitudes of A. M. U. schools teachers towards their profession in relation to sex, teaching experience and academic qualifications. Ahluwalia's (1978) Teachers Attitudes Inventory was administered on a sample of 100 teachers that consisted of 70 male and 30 female teachers having 5 yrs. to above 15 yrs. teaching experience and 50 were graduate trained and 50 were post-graduate trained (35 males were graduate trained and 35 post graduate trained and 15 female were graduate trained and 15 were graduate trained).

The data thus obtained were analysed by the 't' test. The result revealed that female teachers had more favourable attitudes than males. Duration of teaching and academic qualifications had no differential effect on the attitudes towards profession. Alternative explanations of the findings were offered and implication of the results were discussed.

INTRODUCTION

There appears to be general agreement on the fact that educational attainment of children depends to a large extent on the attitude of the teachers towards their profession. As a matter of fact professional performance of a teacher is directly related to his attitude. If he is satisfied with his profession he teaches with interest, takes pains and makes efforts and even sacrifices his personal comfort and ambition to be a good teacher. Moreover, he leaves no stone unturned to see that his students not only make progress in academic field but also in other aspects of life. Naturally, a teacher with favourable attitude towards his profession would produce the right type of youths, while the one with an unfavourable attitude towards the profession would produce top-sided personalities. Thus attitude of a teacher towards his profession has occupied acentral place in education particulary and in other disciplines generally. Numerous studies, therefore, have been conducted to assess the attitudes of teacher towards their profeasions in different department department of studies as well as in different school and college

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(Dasgupta, 1965 ; Verma, 1968 ; Sinha, 1969 ; Samantarory, 1971 ; Mehta, 1974 ; Lavingia, 1974 : Sukhwal, 1977, Thakar, 1977; Tripathi, 1978).

However a thorough review of literature reveals that no such study has been conducted so far in A. M. U. Schools. The present study is, therefore, designed to determine attitudes of A. M. U. Schools teachers towards their profession. The findings of the present study will certainly help us to understand some of the problems of A.M.U. schools.

Sample : Hundred teachers from A. M. U. Schools were selected randomly. Out of these 100 teachers 70 teachers were male whereas 30 were female. There were 50 trained teachers with post graduate degree and 50 trained with graduate degree. The duration of experience was 5 years, 6 to 10 years, 11 to 15 years and above 15 years.

Tools Used : Teacher Attitudes Inventory developed by Ahluwalia (1978) was used to measure the attitudes of the teachers. The inventory consists of 90 items. The scoring scheme of the inventory was as follows :

A score of 4 was assigned to the response "Strongly agree" as score of 3 to "Agree," a score of 2 to "undecided" response, a score of 1 to "Disagree" and zero was assigned to "strongly dis-agree" response. This was done for positive or favourable statements. For unfavourable statements, on the other hand, the scoring system was reversed. The strongly disagreed was given the score of 4 (four) and strongly agreed response the scores of zero only.

Procedure : Ahluwalia's (1978) Teacher Attitude Inventory was administered on small groups of teachers to measure their attitudes towards their profession. Following instructions were given to the subjects :

"The inventory contains some statements regarding attitudes towards teaching profession. With some of them, you will agree and with others you will disagree. Your degree of agreement or disagreement may also differ from statement to statement. Kindly indicate your opinion about each statement by putting a tick mark (✓) in any one of the 5 response categories against the each statements".

As soon as the subject completed the inventory, the tests forms were collected and scoring was done. The data thus obtained were tabulated and statistically analysed.

Results and Discussion : *'t'*-test was used to analyse the data to make necessary comparisons.

Sex-Wise comparison : Table-I shows that mean attitude score obtained by male teachers (i. e. 239·22) is markedly lower than the mean attitude score (i. e. 261·03) obtained by female teachers. The *'t'* value is 5·535 which is significant .01 level.

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Table-I : Showing mean attitude scores obtained by male and female teachers and '*t*'-value

Groups	Mean	'*t*'-value
Male	239·22	
Female	261·03	5·535

The result leads us to conclude that female teachers as compared to male teachers have more favourable attitudes towards their profession.

Experience-wise Comparison : The mean attitude score obtained by teachers having different duration of experience are given in table II (a) and their respective '*t*' values are given in table II (b).

Table-II (a) Showing mean attitude scores obtained by teachers having different duration of teaching experience.

Lavel	Duration of experience	Mean
A	0 to 5 yrs	227·062
B	6 to 10 yrs	232·44
C	11 to 15 yrs	235·13
D	Above 15 yrs	239·6

Table-II (b) : Showing '*t*' values.

Comparisons	'*t*' Values
A Vs B	0·125
A Vs C	0·190
A Vs D	1·456
B Vs C	0·429
B Vs D	0 084
C Vs D	0·532

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As shown in table-I (a) the mean attitude scores obtained by teachers having different duration of experience are more or less equal. The finding suggests that duration of experience has no effect on the attitudes of teachers towards their profession. This finding is confirmed when one looks at table II (b) where all the '*t*' values are statistically insignificant. Thus it is safely concluded that duration of teaching experience has no impact on the attitudes of teachers towards their profession.

Qualification-Wise Comparison : As shown in table-III, the teachers having graduation degree with training and master degree with training obtained more or less equal mean attitude scores i. e. 241·16 and 237·66 respectively and the '*t*' value is 0·474 which is insignificant. The results lead us to conclude that qualifications of teachers have no differential effect on their attitudes.

Table-III : Showing mean attitude scores obtained by graduate trained and post-graduate trained teachers and '*t*' value.

Group	Mean	'*t*' Value
Graduate & Trained Teachers	241·16	·474
Post-graduate & Trained Teachers	237·66	

The first findings of the study i. e. female teachers have more favourable attitudes towards their profession than their counterpart i. e. male teachers, is in accordance to progressive thinking among women. Women are no longer a prisoner of the house. They have started "Women Liberation Movement" that advocates justice and equal rights to women. The movement claims that women like males can do any job. They are equal in all walks of life. Such thinking among female subjects might have induced higher level of motivation which in turn might have cultivated the ground for the development of more favourable attitudes among female subjects towards their profession.

The second finding of the present investigation i.e. duration of teaching experience has no differential effect on the attitudes of teachers towards their profession reveals that teachers by and large have satisfactory experiences in their profession throughout their career. Had they experienced bitterness in their profession or had they were not satisfied with their profession, their attitudes towards their profession would have certainly changed in negative direction with the length of their service. Contrary to this, the findings of the study show that even teachers of 5 yrs experiences do not differ from teachers of 15 yrs experience with respect to their attitudes.

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The final finding of the study is qualifications of teachers have no differential effect on attitudes towards their profession, needs, no explanation. Infact attitudes towards any profession are not determined by qualification rather by the working conditions and the organizational climate of the organisation.

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Generation Gap in the Attitude of Giving Freedom to Children : A Comparative Study

Dr. Mrs. Anju Agnihotri*

INTRODUCTION

Values customs and tradition are changed when there is a change in social structure. The speed of changes in our own time is far more fast than that in the ancient time. These changes are so fast that there is difference between the field-work of father and that of his son. This fact is well known as 'cultural backwardness' and 'generation gap.' In the process of social progress and parallel to this, an important problem of generation gap arises. Therefore the problem to bring harmony between two generations arises in this situation. The problem of harmony arises mainly because of difference in values that arise due to different attitudes in two generations. The old generation strictly adheres to its own values and wants to hand them down to new generation.

Attitude is the mental out look of a person. Every person has perception o things and situation according to his thought. In the changing world there is difference in experiences between the old and new generation. This differences gives rise to psychological and attitudinal difference and also the difference in thought process. In traditional families a child is brought up under the discipline of his parents and grand-parents The young generation has democratic attitude regarding freedom to be given to children. The adult and old generations restrict this freedom. The contemporary adolescent generation, however, demands, maximum freedom so that they may express their thoughts and feelings and evolve a mature personality. Otherpise, in absence of freedom, they say, several emotional complexes take their roots and they become barriers in the way of adjustment. According to Frend and Adler if parents have too much care for children and over-fondle them, the latter are greatly inclined towards menial obsession. On the other hand if the parents are too harsh towards children, they adopt the attitude of revolt not only towards their parents but also towards the authority of the young.

In family relationship at the time of dialogue children should have participation and their feelings and ideas should be attended to so that the feeling of inferiority and frustration may not develop in them. Children should be given freedom to a certain limit and they should also get guidance from their parents. In the attitude of parents towards

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giving freedom to children is inherent the freedom of choice of their activities and friends and so on the part of children. This freedom indicates the absence of the interference from the parents. By the authoritarian attitude of parents child becomes timid and he experiences the lack of protection and freedom. In the old generation parents were sovereign power and they kept their children in rigid discipline but now in the thought of young generation a significant change has come. At present sufficient freedom in being given to children in families.

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Now-a-days orthodox religions ceremonies are not performed with an attitude of keeping the tradition alive. In the old and adult generation, the aim of parents to punish children was not to discipline them but to express their own anger only while in young generation a change in the attitude of parents, with regard to harsh discipline has come parents have no harsh atttitude. The reason behind this is a radical change in values with the process of time. Staples R. Smith W. also found in one of his studies that "Grand mother is more harsh than mother but when the grand mother lives with her grandsons in the same family, then she and mother both are less harsh."

HYPOTHESIS

There is meaningful difference in the attitudes, about giving freedom to children, of the adolescent, the adults and the old.

Objective : To have the comparative study of the attitude towards freedom to be given to children, of the adoloscent the adults and the lod.

PROBLEM

To present a comparative study of generation ap in the attitude of giving freedom to children is the main problem of this study.

METHODOLOGY

In the present study survey-method has been used and for this the sample has been selected from Agra city. Also the Quota-sample method has been employed. While selecting quota-sample, first of all, the whole class has been divided in different classes according to their qualities or merits. Then the selection of necessary units from different classes has been done accordingly. Keeping in view the problem, the sample of male and female of three age-levels has been selected for experiment.

S. No.	S. N. of Sample	Age Level I	Age Level II	Age Level III	Number	Total
1.	Female	17-20	30-35	60-65	90	190
2.	Male	17-20	30-35	60-65	90	

In this the samples of total 180 units were taken. The selection is concerned not with one institution but it is from different families, religions and castes.

Tool : The attitude scale of attitude towards freedom to children.

Scales-Koch, Dentder, Dysarl and Streit.

There are thirty-three statements which are related to social life. About these answers have to be given on two points of scale-right (√) and wrong (×).

EVALUATION OF RESULT OF THE EXPERIMENT

In the present study the subjects gave right (√) and wrong (×) answers. Facing right (√) marks have been assigned and a median was found out of those obtained marks.

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STATISTICAL

(1) Ungrouped mean.
(2) Ungrouped median.
(3) Duncan's Range Test.

RESULTS AND DISCUSSION

Chart Different values of mean, mean difference and (RP) of different groups.

Group	Group 1	Group-2	Group-3
rp	3·64	3 64	3·80
RP	·91	·91	·95
Mean	old 4·34	adult 5 41	adolescent 6·34
Mean difference	Adolescent-Adult ·93	Adult old 1·07	Adolescent-old 2.
Level	·01	·01	·01

In order to know the above mentioned result Duncan's Range test has been used. Calculation of results (RP) has been done on the basis of values. The mean of the adolescent, adult and old generation of the obtained marks in the present scale is 6·34, 5·41 and 4·34 respectively. The difference of means of the adolescent and the old generation is 2·0 which is more than R P value ·95. The mean difference of the adult and old generation is 1·07 which is more than RP value ·91 (Group 1 and 2). The mean difference of the Adolescent and Adult generation is ·93 which is a little more than RP value ·91 of the first group. All results are meaningful on the level of ·01. In the attitudes of the adolescent generation there is great difference from those of the old generation. In this the marks obtained, being high, express the democratic attitude and Less obtained marks exhibit the authoritarian attitude.

It has been found that the adolescent generation is in favour of giving more freedom to children than the adult and old generation. Therefore the hypothesis is accepted. It has also been found that the democratic and authoritarian attitudes influence the personality of children. Such results are also found in the study of Redke M.

Redke discovered that "children coming from authoritarian families have more gurrulous attitude towards their fellowmates than children coming from the families having democratic environment because in the families they are not given opportunity to express their resistance against the harsh discipline of their parents."

In young generation a positive attitude has been found regarding freedom to be given to children. In other words the present generation is giving more freedom to children than the adult and the old. The old generation lays emphasis on control whereas the new generation on way wardness. Gans found in his study that there is great difference in the world of children from that of the parents as it is between father and mother themselves. In the second and third generation children are more free and parents do not bother about the activities of their children until they are involved in some trouble. Dr. Anusinya studied 192 parents and their 204 children in 1980 and found some results. It was found that husband and wife both did not want to follow

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the tradition of the family. Parents accept the view in connection with the discipline of children don't express their agreement with their parents with regard to the old methods of bringing up the children. The young generation is ever eager to get more freedom. For example, they believe in free thinking, in free movement with male or female friends and want active participation in the decisions of the family. The present adolescent generation is of the opinion that children should be given freedom otherwise their personality will not develop with full maturity.

The results of the above mentioned studies as well as the present study clearly show that there is meaningful and positive difference in the attitudes of the adolescent, adults and the old. This attitude difference shows that children should be given freedom. The adolescents generation is more inclined towards these changes. In the end it can be conclusively said that the generation gap does influence the attitude.

LIMITATIONS

1. The present study has been made only on three age-groups.

   Classes

   17—20 years.

   30—35 years.

   60—65 years.

2. Only 180 units have been selected from study.
3. The male and female adolescents, their parents and grand parents have not been taken as sample but the subjects of three age levels as a class have been selected.

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Multiple Choice Examination A Statistical Analysis

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INTRODUCTION

System of multiple choice testing is a quick system of examining a large group. Either the testing is performed for admission entry or testing is done at the end of teaching for evaluating the group or for an employment. Everywhere the objective is to select a best possible group. In all such testing the number of examinees is large and time at the disposal of examiner is short. Therefore, there is no otherway-out but to give the examination through Multiple choice paper. Multiple Choice Examination (M C E) usually contains questions with 4 or 5 possible answer. One and only one answer is correct and all other are either absolutely wrong or at least misleading to be correct. It has been argued that M C E has a factor of chance i. e., a students may put tick at random and yet he will score 25% markes (Samiuddin, 1969). To avoid answering through chance factor in M C E system of negative marking is alwayes introduced, secondly qualifying marks in M C E are also slightly higher then the classical system of examinations. In most cases 50-60% is the passing score.

In most M C E the group of examinees is a varied one, therefor, the paper is composed of very easy, normal, difficult and most difficult questions. These classification will very from group to group. However, if the pre-requisite qualification for group are fixed then they may behave uniformly The first ever M C E depends mostly on the personal knowledge of examiner. There after, the paper-questions or items can be objectively evaluated for their classification of very easy, normal, diffcult and most diffcult. The process of item analysis focuss on establishing the relative credibility of a question. For example if 85% of candidates answer correctly Q. 1 and 25% candidates answer correctly Q. 20, then Q. 1 can be classified as easy and Q. 20 as difficult for the group. The questions which every one is answering as correct and question which every one is answering as wrong does not fulfill any purpose, hence may be climcated from the future M C E paper. But regardless of what is found in item analysis, the final decision to include or to exclude a particular question is based on human judgemant Nunnaly & Wilson 1975).

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In the present paper an analysis is being presented on M C E test given to 46 candidates in 1985 aspiring for admission in M. Sc. in Computer Science. All candidates were graduate either with Mathematics or Physics or Statistics or B.E. or B. Tech. etc. The M C E test was designed mostly on the level of Intermediate and B. Sc. Mathematice and Physics. The test was divided into two Sections, Section 'A' contained questions on Mathematics and Statistics with 32 items and Section 'B' contained questions on Physics with 25 items, making an overal 57 items Each item has 4 or 5 multiple choices.

Item Analysis : Every question with 4 or 5 options was assigened 1 mark for a correct answer and - 1/4 for a wrong answer. The overall passing grade was fixed as 50% marks. A maximum of 39 (68.42%) correct answers with a minimum of 2 (3·51%) correct answers were observed. No grade was awarded for not answering. Following Sturge's rule (Sturges, 1926) a frequency table with grouping of correct answers was formed (table-1).

TABLE-I

% of marks	Percentages %
3·5-10 4	·58
10·5-17·4	1·73
17 5-24·4	10·12
14·5-31·4	25·14
31·5-38·4	21·97
38·5-45·4	17·63
45·5-52·4	15·32
52·5-59 4	5 49
59 5-66·4	1·16
66 5-73·4	·86
TOTAL	100·00

The distribution looked to be asymetric towards right tail as A.M.= 36·41 ⩾ Median = 35·41 > Mode = 30·23. The variance (S_2) of the distribution turns out to be 124·72 giving S E = = 0·60. In this M C E only 9·17% condidates scored more then 50% markes and thus passed the test. This estimate matches quite favorable with actual passings. 57 items were correctly replied in quite varied manner. Item No. : 33 was correctly replied by maximum number of candidates 286 (P=·8266) followed by item nombers : 25, 26 by 268 candidates (P= 0·7746) and item number 2 by 246

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candidates (P=0·7110). The least correct answers were given for questions 56 ; (P= 0·0674) ; 47 ; (P=0 0809) and 19 ; (P=0·1127). Table-II gives the percentage frequency distribution of proportions correct answer-P.

Table-II

P.	Percentage Frequency
0·01—0·10	3·51
0·11—0·20	17·54
0·21—0·30	24·56
0·31—0·40	22·81
0·41—0·50	14·04
0·51—0 60	3·51
0·61—0 70	7·02
0·71—0 80	5·26
0·81—0·90	1·75
0.91—1·00	0·00
Total	100·00

The distribution is skewed towards right. There are 17·54% items which have proportion of correct answers as 0·51 and more. where as 82·46% of items have proportion of correct answers between 0·01—0·50 this seem to be undesired skewness ? There is a need for systematic changing in the items such that the distribution of proportion correct answers may approach normality.

Reliability of Test : Reliability in the examination measurement aims to measure the degree of consistencey among candidates. Reliabity always means stability or consitency (Anastasi, 1961). When one gives the test to a group of students, he wants to know that how consistent is the test ? The measure of consistency that a test has is called reliability. Reliability of a test can be yield through the evaluation of Reliability coefficients.

There are number of techniques used for obtaining estimates of the reliability coeffecient or precisions of the tests. The popular ones among these include, analysis of variance approach, given by Hoyt (1941) and KR-20 and KR-21 given by Kuder and Richardson, (1937) and Richardson and Kuder (1939

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Analysis of Variance Approach : To employ Hoyt's analysis of variance approach, the test paprers are arranged in descending order of marks obtained. A cross tabulation is prepared with items columns and students on rows. For each student the items he answered correctly are checked as (X). Adding each column and each row we will find C= R. Sums of square are then found as S. S. B/W individuals.

$$\frac{1}{n} \; ci^2 - \frac{(ci)_2}{nk} = 332{\cdot}7032.$$

S.S. B/W Item : $$\frac{1}{k} \; R^2i - \frac{(Ri)^2}{nk} = 652{\cdot}8124$$

Total S.S.: $$\frac{ci(nk - ci)}{nk} = 4514{\cdot}0133$$

ANOVA

Sources	Degress of freedom	S.S.	M.S.S.	C. R	Result
Individuals	345	332·7039	0·9644=A	5 28	**
Items	56	652·8194	11·6575=B	63·83	*****
Residuals	19220	35 8·4697	0·1826=C	—	—
Total	199721	4154·0130	—	—	—

The Individuals differ singificantly, whereas items are highly significantly different; i.e. MCE paper consists of items which are very easy and difficult. The reliabilty coefficient of the test is then found as

$$r_{tt} = \frac{A - C}{A}$$

$$= \frac{9644 - 1826}{9644} = 0{\cdot}8107$$

which shows that MCE Xas moderately reliable in its result.

KR—20 and KR-21

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A widely used form of the Kuder-Richardson procedure their formula 20 denoted by KR —21) is of the form

$$KR-20: \quad r_{tt} = \frac{n}{n-1} \frac{St - \cdot Pq}{St^1}$$

$$= \frac{n}{n-1} \frac{1 - pq}{St^2}$$

where r_{tt} = reliability of the test.

n = number of items in the test.

St = Standard deviation of the scores on the test.

P = Proportion solving correctly a particular item in the test.

q = 1 — p

KR—21 :

$$r_{11} = \frac{n}{n-1} \frac{St^2 - Mt\,(1 - Mt/n}{St^2}$$

Obviously $pq = Mt \left(1 - \frac{Mt}{n}\right)$

where Mt is the mean scores of the group (Thorndike and Hagen 1957).

The reliability Coefficient is a type of Correlation coefficient which varies between —1 to +1.

The values calculated for the MCE under view r_{tt} (KR—20) was found as 0·73 and through (KR—21) was found as 0.69.

Conclusion : The item analysis giving an asymmetric distribution suggests that there is a room for improvement of test paper. Further analysis suggests that questions (No : 33, 25, 26, 2, 56, 47, 19) may be dropped or amended as they serve no purpose being mostly wrongly or correctly answered.

The reliability analysis through three methods gave values as 0.11, 0.73 and 0·69 which can be considered as moderate. This indicates that the relability of test can be improved. This conclusion supports the earlier findings on item. analysis.

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Academic Perfomance, Inter-personal Behaviour and Attitudes of childeren of Alcoholic and Non-alcoholic Families

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The sample consisted of 30 alcoholic and 30 non-alcoholic families in Madras. 25 school going children, 24 non-school going children (E-Group) were selected from the alcoholic families. 25 school going childrens, 18 non-school going children (C-Group) were selected from the non-alcoholic families. Interview schedule was used to measure the respondents adaptability. The obtained data were analysed by quantitative method with the help of descriptive statistics, peroentage and measure of central tendency. The findings showed a decline in academic performance of the children of alcoholic fathers. Undesirable habits like making fun of teachers, telling lies, unnecessarily picking quarrels, wandering etc, got entrenched in the individual (E-group) much to his detriment in the later life as well. Thus, the personality of children of alcoholoics gets distorted due to alcoholism.

INTRODUCTION

The concept of alcoholism is a family illness, in which not only the individual who drinks suffers but also all other members of his family. Specifically, in the case of children of alcoholics, literature indicates as methologically weak, with few well controlled studies on the social-psychological status of children of alcoholics (Jacobs *et al*, 1978, Wilson & Orford, 1978). As the children of alcoholics interact with disturbed family structure, they are often viewed as having major problem (Jacob & Leonard, 1986). There are attempts to evaluate the role that parental alcoholism plays in the psychological and inter-personal function of children (El-Guebely & Offord, 1977 Jacob *et al*, 1978). The alcoholic father may be inconsistent and unpredictable. As a result, his children may be anxious and confused (Poplin, 1978) and have negative attitudes and inappropriate behaviors.

Objectives of study: The children of alcoholic and non-alcoholic families were studied in the following areas : i) academic performance, ii) inter-personal relationship and behavior pattern, iii) habits and attitudes.

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METHODOLOGY

Tool : Interview scheduled was used to measure the respondent's adaptability (self and teachers assessments). The sample consisted of 30 alcoholics and 30 non-alcoholic families in Madras City. The alcoholic names and address were obtained from T.T. Ranganathen Clinical Research Foundation, Port Trust Hospital and Institute of Mental Health. The alcoholics had at least 5 years drinking experience and had been diagonised by medical practitioners to be so.

Sample : 25 school going children, 24 non-school going children (E-Group) were selected from the 30 alcoholic families, 25 school going children, 18 non-school going children (C-Group) were selected from the non-alcoholic families. They (boys) were in the age group between 8 to 10 years. The parents of all children earning from 500 to 1500 rupees.

Results : The obtained results were analysed by quantitative method with the help of descriptive statistics, percentage and measure of central tendency. The following were the findings of the study in various areas :

A. Academic Performance : i) 40% of the studentt in C-Group and 8% of students in E-Group stated that there school performance imdroved of late. On the other hand, 3% of the students in C-Group experienced deterioration in studies while as high as 28% in E-Group complained of it. Hence, the deterioriation in studies in E-Group was 5 times greater than in C-Group.

(ii) Assessed by the teacher, 65% of the students assessed in C-Group scored more than 61% marks, whereas only 17% of the studenrs in E-Group scored such high marks. Again 50% of the students were rated below 40% marks in E-Group and very few were rated likewise in C-Group.

(iii) While 28% of the students in E Group needed special coaching in studies from the teachers, none needed extra tuition in C-Group.

(iv) Participation of children in class was reported good in almost all classes of C-Group while only few respondents participation in E-Group was reported to be so.

(v) In C-Group, no student experienced difficulty to often concentrate in studies and only 27% felt it sometimes, but in E-Group all the students expressed this difficulty either often or at least sometimes.

B-Interaction with Father : i) All the respondents in C-Group introduced their fathers to friends whereas 80% of the responts in E-Group did not.

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ii) Nearly 80% of the students in C-Group write to their fathers for their school functions while in E-Group 76% of students never wrote to their fathers about such functions. In addition. according to the teachers, the father reciprocated to their children enthusiasm by attending the school functions in the case of 75% of their students in C-Group but none in those of E-Group.

(iii) Irrespective of the occupation of the parent, while 30% of respondents in E-Group said that father is neglectable, none in C-Group.

(iv) 17% causes in E-Group hated their fathers but not one was in C-Group to be so, while only 40% of the respondents in E-Group expressed love for the father as high as 68% in C-Group.

(v) 5% of the respondents of C-Group confessed to have been heavy quarrelled with father but in E-Group such instances accounted 75%.

(vi) All the respondents of the C-Group were proud of the father that the father had recognised and appreciated his child's talents always or sometimes but only 45% in E-Group claimed likewise.

C. Social Adjustment and Intraction with friends : (i) According to the teachers assessments all their students in C-Group but only 17% in E-Group were reported to have many friends. The self-assessment of the respondents revealed that those having more than 6 friends worked out to nearly 90% in C-Group while above 90% in E-Group had less than 5 friends.

(ii) While 95% of the respondents in C-Group took their friends home either often or sometimes, only 14% in E-Group did likewise the rest never took their friends home.

(iii) The numbers of respondents who stated that they were friendly was four times greater in C-Group compared to E-group (63% & 16%). According to the teachers 95% of the students in C-Group and only 45% in E-Group were reported to move freely with classmates.

(iv) The teachers report revealed that 28% of their students in E-group, but none in C-group were made fun of their classmates.

(v) The number of students ridiculing their teachers was 12 times more in E-group than in C-Group. (72% & 6% respectively).

(vi) Nearly, all in C-Group (86%) prided themselves on the fact that their families were held in high esteem by others. On the other hand, only 16% in E-Group could declare such satisfaction.

(vii) 76% in E-Group felt that they were ridiculed by the neighbours and of these 95% observed that the reasons for it were fathers drinking habit and the resultant boisterous quarrels at home. 96% in C-Group felt that lheir neighbours did not ridicule them at all.

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D. Behaviour pattern of the children : (i) According to the Teachers' report all the students in C-Group but only 60% in E-Group want to go to school regularly and run finally.

(ii) According to the teachers, among the 20 students in C-Group who were rated, none had the habit of telling lies whereas among the 18 students in E-Group, they could give this assurance only for 50%.

(iii) The habits of seeing movies and wandering about seemed more conspicuous among the E-Group respondents than among C-Group.

(iv) The teachers observations were that all their students in C-Group but only 55% in group attended to their homework regularly.

E Attitudes of the Children : (i) Regarding the self-appraisal in studies, about 60% in C-Group but only 20% of the students in E-Group considered themselves good. On the other hand, only 3% in C-Group but 32% in E-Group rated themselves poor in studies. The rest said that they were average. Similarly, 3/4 in C-Group rated their performance in sports and games as high, whereas more than 3/4 in E-Group rated it as low.

(ii) More than 80% of the respondents in C-Group testified that they did not dislike anything in their fathers while none in E-Group said so. 76% of the respodents in E-group openly confessed that they dislike their fathess drinking habit.

(iii) 99% in E-group stated that their fathers were extravagant and borrowed money from family members but these behaviors were much less in C-group.

(iv) About 100% of the respondents in C-group but only 27% in E-group said that they loved their homes Of the rest in E-group (57%) felt at times they would like to leave their homes, whereas 16% complained that their home life was intolerabie.

(v) Only 28% of the respondents in C-group expressed worries about their family atmosphere while as high as 78% iu E-group were worried.

(vi) (a) While 75% of the respondents in E-group stated that they suffered form lonelineas either often or somstimes only 4% in C-group felt so.

(b) Feelings of irritation were noticed in 40% of the respondents in C-group but as high as 90% in E-group.

(c) Only about 22% in C-group felt rest less while as high as it E-group felt.

(d) While only 7% of respondents in C-group felt depressed as high as 82% in E-group complained of the same.

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DISCUSSION

Low school performance, low marks, need of extra tuition, coucentration difficulties and poor participation of children inclass are reported in E-Group (alcoholics) in comparison to C-group (non-alcoholics). Ziegler-Driscoll, (1979) also found that the children of alcoholics exhibited poor academic work. Introducing father to friends, writing about school functions to father, getting reciprocation from father, proud of father, and recognition and appreciation of father are hoorly expressed. Berides, neglect of father and quarrel with father are reported in E-group compared to C-group. To this view, Huges (1977) and Cork (1969), state that the children of alcoholics feel angry and hostile towards patents. Having less number of friends, not taking friends home, not moving freely with friends, making fun, ridiculing their teachers are seen more in E-group than C-group. Similar findings are that childred of alcoholics often had many school problem (Chafetz, 1976), lower self-esteem (Huges, 1977, Mclachlan *et. al*, 1973), prone to negative emotional mood (Hughes 1977).

No regular attendence, habit of telling lies, seeing movies, wondering and not doing home work are common among E-Group compred to C-group. El-Guebaly and Offord (1977) have found that children are more likely to suffer from emotional disturbance compared to various control group. Self-appraisal, social gathering, extravagant father, not loving home, worrying about family atmosphere, suffering of loneliness, feeling of irritation, restlessness, depression are found more in E-group. The present study supports the previous findings (Ackerman 1983, Black 1970, Cosk, 1979) that the children of alcoholics have major problem and adjustment difficulties. These problems include aggressive and anti social behavior difficulties with peer and peer school adjustment. Slobada (1974) asserts that offspring of alcoholics often have personality disturbance which manifest itself as hostility, impulsiveness and depression.

CONCLUSION

Children of E-group (alcoholics) declind in academic performance with high concentration difficulties and low participation in class. The alcoholic fathers, do exercise direct/indirect influence in their children's education. In the present study, social adjustment, interaction with friends and behoviour pattern are poor in children of alcoholics Undesirable habits liking making fun of teachers, telling lies, unnecessarily picking quarrels on flimsy ground, showing scant regard to elders by abusing them, wandering habit etc., get entrenched in the individual much to his detriment in his latter life as well. Children of alcoholics have negative attitudes toward fathers and family atmosphere. Loneliness, feeling of irriation and depression are also reported high. Thus the personality of the children of alcoholics get grossly distorted due to alcoholism.

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A Study of Academic Achievement in Relation to Personality and Self-Perception

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The present study was undertaken to quantify the relationship among Academic Achievement, Personality and Self-perception. Scores in the last university examination were taken as the index of the Academic Achievement. Extraversion, Neuroticism, Psychotisism and Lie-Scale were measured through Eysenck's personality Questionnaire (1978) and self-perception was measured through Clark's Activity Vector Analysis (1956). Correlational analysis was done alongwith the 2 × 2 analysis of variance. Academic Achievement was found to have a significant but negetive correlation with Lie-Scale. Self-perception was found to be significantly though negatively related with academic achievement on Emotional Control (F_3). Sex was found to be a significant determiner of Academic Achievement, Extravession and Neuroticism. Area of study was found to be significant determiner of Academic Achievement Neuroticism, Sociability (V_2), Social Adaptability (V_4) and Soical Intelligence (V_5).

INTRODUCTION

Academic Achievement means a persan's level of skill, range or breadth of information and what he he has accomplished in designeted area of learning and behaviour. So it has drawn the attention of investigators and one of the recuarent themes to be foundin educational research involves the antempt to unravel the complex determinants of academic achievement. Early work concentrated on Intelligence as the main exp'anatory variable. But the imperfect nature of correlations going up to .50 (Eysenck, 1960, Pandy, (1981) suggests scope for entertaining the possiblility of other variables responsible for the total academic performance.

Personality has been recognised as a very important determiner of human behaviour. Eysenck (1960) defined, "personality is more or less a stable and endurirg organization of a person's character, temperament, intellect and physique which determines his unique adjustment to the environment."

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There are a number of evidences that Neuroticism is related positively to Introversion. This trend was indicated quite early by Himmelweit (1946) This finding was soon confirmed by Eysenck (1947) These studies were further confirmed by Kline (1966). Madan (1967), Entwistle and Shirley (1968), Dotson and Templer (1969), Mohan (1976) and Mohan *et al.* (1981).

Eysenek and Eysenck (1978) found that males scored higher on Extravession than females. Kakar (1979) also reported the same results. These studies were further confiremed by Sharma (1981).

One group of investigators reports that high autonmic drive (Neuroticism) would facilitate performance at the higher academic level. In this group of studies can be included the work of Furneaux (1956) who found aspositive relationship between neuroticism and attainn ert for University students. His study was confirmed by Robinson (1966), Eysenck and Eysenck (1968), Walsh and Walsh (1978) an Mohan and Khera (1982).

Terman and Tyler (1954 , Eysenck (1957), Yates and Pidgeion (1959) reveal that females score higher on Neuroticism then females. Mehryar, Khajavi and Hosseini (1973) found that people who score high on (P) are low on academic aehievement Upmanyu *et. al.* (1980) further confirmed these results. Studies done by Edwards (1951), Gupta (1977) and Kapoor (1971) report males scoring slightly higher than females on Lie-Scale.

Self-perception is considered to be a very important concept in the understanding and prediction of human behaviour. Self-Perception is a person's image about his own self Murphy (1947) defines the self-perception as an individual perception and conceptions of his whole being that is, the individual as known to theindividual. The individual's self-perception guides his interpretation of his environment, including his perception of the learning situation. On this basis, it can be assumed that functional levels of self-concept held by individuals would influence academic performance as significantly as would their academic potential.

Studies done by Bailey and Bailey (1971), Sharma (1971), Leviton (1975, Hill (1978), Abbott (1981) and Aguero (1982) confirm that there is a positive and significant relationship between self-perception and academic success.

METHOD

1. *Subjects* : The total sample consisted of 400 university students, drawn from various departments of Punjab University in the following manner :

(a) Arts Males (100). (b) Artss Females (100), (c) Science Males (100) (d) Science Females (100).

Material : The Eysenck's Personality Questionnaire (1978) was used for the personality assessment. This questionnaire consists of 100 statements and the answers can be given by eitner circling Yes or No.

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A special from of the Activity Vector Analysis (Clarke, 1956) was used to measure the self-concept. It is an open-ended adjective check-list consisting of 84 words which are descriptive of human behaviour and temperament. It meaeurers five vectors of human behaviour Viz. Aggressiveness (V_1), Sociability (V_2), Emotional Control (V_3), Social Adaptability (V_4) and Social Intelligence (V_5). Subject has to put '√' before those words which describle his completely.

RESULTS

The mean scores of the total sample on academic achievement were 63·53, of males and females 64·73 and 62·33 and of Science and Arts subjects 66·49 and 60·57 respectively. Analysis of variance was performed to see the existing differences (if any) between Science and Arts students as well as between males and females. Analysis of variacnce for all the variabls is given in tables I to X.

Table I : Anova of Academic Achievemeut Scores.

Source of Variance	SSQ	df	MSQ	*F*-ratio	Level of Significance
Sex	578·03	1	578·30	11·77	.01
Subject	2498·60	1	3498·60	71·18	.01
Sex X Subject	33·20	1	33·20	0 68	NS
Error	19463·60	396	49·15		
TSS	23573·70	399	59·08		

Table-II : ANOVA of Extraversion Scores.

Source of Variance	SSQ	df	MSQ	*F*-ratio	Level of Signicance
Sex	105·06	1	105·06	5·47	.05
Subject	46·92	1	46·92	2·44	n.s
Sex X Subject	0·00	1	0·00	0·00	n.s
Error	7610·79	396	19·22		
TSS	7762·78	399	19·46		

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Table-III : Anova of Neuroticism Scores

Source of Variance	SSQ	df	MSQ	*F*-ratio	Level of Significance
Sex	712·89	1	712.89	32·04	·01
Subj·ct	231·04	1	231 04	10·33	·01
Sex X Subject	9·00	1	9·00	0·40	n.s
Error	8809.78	396	24·47		
TSS	9762·71	399	24·47		

Table-IV : Anova of Psychoticism Scores

Source of Variance	SSQ	df	MSQ	*F*-ratio	Level of Significance
Sex	30 80	1	30 80	2 83	n.s
Subject	31·92	1	31·92	2·94	n.s.
Sex × Subject	20·70	1	20·70	1·90	n.s.
Error	4306·67	396	10·88		
TSS	4390·10	399	11·00		

Table-V : Anova of Lie-scale Scores

Source of variance	SSQ	df	MSQ	*F*-ratio	Level of Significance
Ses	0·56	1	0·56	0·03	n.s.
Subject	7·02	1	7·02	0·36	n·s.
Sex × Subject	11·90	1	11·90	0 61	n.s.
Error	7692·51	396	19·43		
Tss	7711·92	399	19·33		

Table-VI : Anov l of Aggressiveness (vi) Scores

Source of variance	SSQ	df	MSQ	*F*-rato	Level of Significance
Sex	5 06	1	5·06	0·58	n.s.
Subject	0 42	1	0·42	0·05	n.s.
Sex × Subject	0·12	1	0·12	0·01	n.s.
Error	3427·09	396	8·65		
Tss	3432·70	499	8·60		

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Table-VII : Anova of Sociability (V_2) Scores.

Source of Variance	SSQ	df	MSQ	*F*-ratio	Level of Significance
Sex	1·00	1	1·00	0·66	n.s.
Subject	75·69	1	75·69	4·36	.05
Sex × Subject	28·09	1	28·09	1·62	n.s.
Error	6876·78	396	17·37		
Tss	6981·56	399	17·50		

Table-VIII : Anova of Emotional Control (V_3) Scores.

Source of Variance	SSQ	df	MSQ	*F*-ratio	Level of Significance
Sex	2 40	1	2 40	2·20	n.s.
Subject	22 56	1	22·56	1·88	n.s.
Sex × Subject	51 12	1	51·12	4 2	0·5
Error	4746·31	396	11·99		
Tss	4822·40	399	12·09		

Table-IX : Anova of Social Adaptability (V_4) Scores

Source of Variance	SSQ	df	MSQ	*F*-ratio	Level of Significance
Sex	21·62	1	21·62	1·73	n.s.
Subject	68 06	1	68·06	5·43	.05
Sex × Subject	0·42	1	0.42	0·03	n.s.
Error	4959·57	396	12·52		
Tss	5049·68	399	12·66		

Table-X : Anova of Social Intelligence (V_5) Scores.

Source of Variance	SSQ	df	MSQ	*F*-ratio	Level of Sigificance
Sex	33·64	1	33·64	3·78	n·s.
Subject	81 00	1	81·00	9·09	.01
Sex × Subject	2·25	1	2 25	0·25	n.s.
Error	3528 30	396	8·91		
Tss	3645· 9	399	9·14		

Correlational analysis was done to investigate the relationship among Academic Achievement, Personality and self-perception. The correlations for all the variables are given from table XI to XV.

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Table-XI : Showing Correlations of Total Sample.

Variables	A. A.	E	N	P	L	V_1	V_2	V_3	V_4	V_5
Ac. Ach.	−.04	−.00	−.05	+.11*	.05*	−.06	−.10*	−.03	−.04
E		−.33**	−.06	−.07	+.17**	+.34**	−.04	+.16	+.20**
N			+.16**	−.08	+.05	−.08	+.04	−.11**	−.10*
P				+.24**	+.15**	−.02	−.09	−.14**	−.05
L					+.08	+.11*	+.25**	+.13**	+.07**
V_1						−.55**	+.29**	+.42**	+.65**
V_2							+.56**	+.68**	+.69**
V_3								+.73**	+.62**
V_4									+.85**
V_5									

Table XIII : Showing Correlations of Males.

Variables	A. A.	E	N	P	L	V_1	V_2	V_3	V_4	V_5
Ac. Ach.	−.12	+.01	−.08**	−.11**	+.05**	−.05**	−.10**	−.12*	−.07*
E		−.35**	−.13**	−.00	+.19**	+.34**	−.02	+.14*	+.17*

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	+.14	−.05 **	−.05 *	−.16	+.04 **	−.11 **	−.11 **
N							
		−.29	+. 0	−.08 **	−.16 **	−.22 **	−.14
P							
			−.08	+.18 **	+.24 **	+.17 **	+.09 **
L							
				+.51	+.33 **	+.39 **	+.64 **
V_1							
					+.57	+.65 **	+.68 **
V_2							
						+.75 **	+.65 **
V_3							
							+.85
V_4							
V_5							

Table-XIII : Showing Correlations of Females.

Variables	A. A. E	N	P	L	V_1	V_2	V_3	V_4	V_5
Ac.Ach.	+ 01	+.08 **	−.04	−.12 * **	+.04 **	− 08 **	−.11 *	+.06 **	−.03 **
E		−·27	−.05 **	−.14 **	+.21	+.33	−.05	+.17	+.21
N			+.26	−.12 **	+.16 **	−.01	+.02	−.09	−.05
P				−.20	+.19	+.04	− .02 **	−.06 *	+.03
L					−.08	+.05 **	+.26 **	−.10 **	−.05 **
V_1						+.60	+.27	+.46	+.65

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V_2						+.55**	+.72**	+.75**
V_3							+.71**	+.59**
V_4								+.84**
V_5								

Table-XIV : Showing Correlation of Science Students.

Variables	A. A.	E	N	P	L	V_1	V_2	V_3	V_4	V_5
Ac. Ach.		−.13**	−.01	−.01	+.01	+.04	+.09	+.12*	+.10*	+.06
E			−.34**	−.10*	−.08	+.15**	+.26**	−.11*	+.03	+.08
N				+.18**	−.18**	+.08	−.05	+.04	−.07	−.06
P					−.28**	+.13**	×.01	−.06	−.13**	−.07
L						−.08	+.08	+.25**	+.19**	+.12*
V_1							+.60**	+.30**	+.47**	+.64**
V_2								+.51**	+.66**	+.68**
V_3									+.75**	+.69**
V_4										+.86**
V_5										

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Table XV : Showing Correlations of Arts Students.

Variables	A. A	E	N	P	L	V_1	V_2	V_3	V_4	V_5
Ac. Ach	+.11**	-.13**	-.17**	-.21**	+.07	-.11*	-.27**	-.06	-.01	
E		-.30**	-.05	-.07	+.15**	+.40**	+.02	+.28**	+.31**	
N			+.13**	+.01	+.02	-.09	+.05	-.12*	-.10**	
P				-.21**	+.17**	-.03	-.12*	-.14**	-.00	
L					-.07	+.14**	+.25**	+.08	+.02	
V_1						+.52**	+.40**	+.39**	+.67**	
V_2							+.60**	+.69**	+.70**	
V_3								+.70**	+.58**	
V_4									+.83**	
V_5										

** = Signicant at .01 level * = Significant at .05 level.

DISCUSSION

The results of the present study reveal that Academic Achievement is related negatively with Lie-Scale and Emotional control (V_3), both significant at .05 level All other correlations were found to be insignificant. The negative correlation between Academic Achievement and Emotional Control (V_3) favour the results of Gustar (1962), Sinha (1970), Ford (1979) and Larned and Muller (1979).

For the male group, Academic Achievement was found to be negatively correlation between Extraversion and Lie-Scale. The negative corrlation between Extraversion and Academic Achievement go in the line of studies done by Finlayson (1970), Mohan (1976), Chandra and Kundu (1981) and Pandey (1981). The negative

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correlation found among Academic Achievement and Emotional Control (V_3) and Social Adaptability (V_4) goes in the line of results found for the total sample. For females group, it was found that Lie-Scale and Emotional Control (V_3) have a negative correlation with Academic Achievement, which goes straight along with the results found for total sample.

Lie-Scale was found to be negatively correlated with Academic Achievement for Science group, which is same as for the total sample. The positive correlation found between Emotional Control (V_3) and Social Adaptability (V_4) supports the findings of Simon and Soman (1975), Muller and Spuhler (1976) and Abbott (1981) who found that Academic Achievement is positively related to Selfperception.

The positive correlation found between Extraversion and Academic Achievement studies done by Rudding (1967), Jenson (1973) Irfani (1978) and Walsh and Walsh (1978). The Academic Achievement was found negatively correlative with Neuroticism, Psychoticism and Lie-Scale. The negative correlation found between Academic Achievement and Neuroticism supports the findings of Savage (1966), Butcher (1969), Elliot (1972), Brar (1976), was found that high emotionality is not advantageous to the Academic Achievement The negative correlation found between Psychoticism and Academic Achievement supports the studies done by Mehryar, Khajavi and Hossini (1973) and Upmanyer et al (1980), who also found that people who score high on P, are low on academic Achievement. The negative correlation found between Academic Achievement and Sociability and Emotional Control is the same as found for the sample.

The analysis of variance for Academic Achievement shows that males and females and as well as Science and Arts Subjects differ on Academic Achievement, means favouring males and Science subjects. The results go in the line of the study done by Cornelius and Cockburn (1979) in which they found that boys score higher than girls in maths and Science subjects.

The Analysis of Variance for extraversion scores shaws that males and differ on this particular dimension of personality, means favour males. These results support the findings of Cuttman (1966), Mohan et al. (1968), Mohan and Purang (1969), and Sharma (1981) who also found that man are higher on Extraversion than woman which might be the outcome of our cultural conditioning.

The Fratio's for Neuroticism scores show that males and females differ on this dimension of personality, means favour females. These results go in the line of the results found by Eysenck (1957), Mohan et al (1968), Eysenck (1969) and Amarjit (1970).

Area of study was also found to be a significant determiner of Neuroticism. These results favour the findings of Horn et al. (1975) who reported that Social Sciences students score high on Neuroticism as comparedto Engineering students. According to him high Neuroticism score is a female characteristic and Social Sciences are often chosen by females than males.

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The results of the present investigation reveal that on all the sectors except Aggressiveness, Arts students score higher than Science students. The Fratio's reveal the significant differences on Sociability ($P < .05$), Social Adaptability ($P < .05$) and Social Intelligence ($P < .01$). The other two Fratio's were found to be insignificant.

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Horizontal and Vertical Transfers in Physics Curricula

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INTRODUCTION

Need for the Study : Learning is an active process aimed at the occurence of relatively permanent modification of behaviour by which the desired behavioural outcomes are effected on the part of the learning. One of the significant components of learning is transfer of learning. Psychologists like Thorndike. Judd, James, Gagne attribute great importance to the role of transfer of training in learning different subjects. It is a known fact that the similarity or identity of elements facilitate positive transfer of learning. Since the learning of various subjects in the formal system is so organised as to split the elements of subjects and place them at different stages of education viz., Primary, Upper Primary, Secondary and Higher Secondary, the assessment of subjects' curricula in terms of the provision for transfer of learning assumes significance. It is in this context that the present investigation seeks to assess the degree of provision for transfer of learning in the physics curricula at different stages of education in Tamilnadu.

Objectives : The major objectives of the study are :

1. To assess the degree of provision for horizontal transfer in each stage of education.

2. To assess the degree of provision of vertical transfer at various stages of education.

Methodology : 'Content Analysis' as a method of research was employed in the present study.

(*i*) *Collection of Documents* : The syllabi and text books in Physics for Stds. I to XII were collected from the Tamilnadu Text Book Society, Madras.

(*ii*) *Identification of Curricular elements* : The curricular materials were subjected to analysis and the No. of elements present in Primary, Upper Primary, Secondary and Higher Secondary were found to be 13, 33, 58 and 153 respectively.

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(iii) Horizontal Transfer Ratio : Refers to the degree of recurrence of same elements in more than one standard belonging to the same stage of education. For example 4 elements are present in more than one standard belonging to the primary stage of education. But the total No. of elements present in the primary stage is 13. Hence the horizontal transfer ratio is $4/13 = 0{\cdot}31$.

(iv) Vertical Transfer Ratio : Refers to the degree of application of the elements from the particulars stage in any higher stage. For example the No. of elements present in the primary stage is 13. All the 13 elements are used in higher stages. Hence the Vertical transfer ratio is $13/13 = 1$.

Thus the horizontal and vertical transfer ratios were computed and the details are given under Analysis and Discussion.

ANALYSIS AND DISCUSSION

Table 1 : Horizontal transfer ratios- Stage wise.

Stages	Primary (I to IV)	Upper Primary (V to VII)	Secondary (VIII-X)	Higher Secondary (XI-XII)
No. of elements recurring in more than One Std.	4	11	13	16
Total No. of elements present	13	33	58	153
Ratios	·31	·33	·22	·1

It is evident from the Table 1 that horizontal transfer is relatively high in Upper Primary stages followed by Secondary and Higher Secondary. In other words it is in agreement with common expection that the children at lower stages need repetition for better understanding as compared to the students at higher stages.

Table 2 : Vertical Transfer Ratios-Stagewise

Stages	Primary	Upper Primary	Secondary
No. of elements used in higher stages	13	30	52
Total No. of elements present	13	33	58
Ratios	1	·91	·9

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It is evident from the Table 2 that the vertical transfer is found to be highest and maximum possible in primary followed by Upper Primary and Secondary.

It is quite heartening to note that the provision for vertical Transfer in Physics Curricula at Primary, Upper Primary, and Secondary stages is found to be highly satisfactory.

CONCLUSIONS

The major conclusions emerging from the study are;

1. The physics curricula at different stages are found to be meaningful in their organisation giving optimum scope for horizontal and vertical transfers of learning to take place on the part of the students.

2. The organisation of Physics Curricula is in agreement with the popular expectation that the elements in the lower stage get frequent transfers as compared to the elements in higher stages, since the very higher stages depend on the lower stages of education.

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Manifest Anxiety as a Determinant of Academic Performance

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INTRODUCTION

The study of anxiety as a personality factor perhaps has gained more momentum than any other factors in the contemporary psychological research. In the domain of academic achievement also, manifest anxiety has been sufficiently investigated by both Indian and western researches, However, the findings pettaining to the relationship of manifest anxiety and academic performance has not been conclusive. Sarason (1957), Furneaux (1957) and Bending (1958) have found anxiety to facilitate academic performance of students while Reese (1961) Feldusen et al, (1965), Burton (1966) and Singh (1966) have observed it as factor of interference in intellectual performance of the students. On the other hand, Grooms and Endler (1960), Singh (1971), Signal (1974) and Ganguli (1983) Found no significant relationship between anxiety and academic achivement. The studies conducted by spielberger (1962), Gaudry and Spielberger (1971) and Henrich and Spielberger (1982) and others have found that the effects of anxiety on academic achievement are complex and appear to be influenced by individual differences in intelligence.

In view of the above observations it can be concluded that there is no unanimity among the findings of researches undertaken on the relationship of anxiety and academic achievement. Therefore, it was thought to be desirable to study the manifest anxiety as a determinant of academic performance of High School students. The hypothesis of no difference was Formulated to realize the objective of the study.

METHOD

Sample—The sample of the study comprised 100 male students belonging to science and arts main streams. These students were splected from two Higher Secondary Schools of Behror, Distt. Alwar Rajasthan by a random sampling method. The institutions were also selected randomly.

Tool : N. K. Dutt's personality Inventory (1975) was administered on the sample to measure the manifest anxiety. There are 90 items in the inventory. 80 items are related to psychic components and 10 items pertain to somatic components. Rest of the items give the lie score.

Procedure : Personality Inventor of Dutt was administered on the subjects according to predetermined schedule. However, prior to administering it, subjects were informed about the purpose of the study. Necessary directions were also issued regarding

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responding to the items of the inventory. On completion of the inventory, scoring was done with the help of scoring key provided by the author in the manual.

Academic achievement was taken in terms of the aggregate marks obtained by each student in their final High School Examination conducted by Secondary Board of Education, Rajasthan.

Then the sample was trichotomized in high, medium and low mainfest anxiety groups based on the scores on personality inventory. The high manifest anxiety group (HMA) consisted of those subjects who scored above Q_1 and the low manifest anxiety group (LMA) comprised the students whose marks were upto Q_1. The average manifest anxiety group (AMA) included those subjects whose scores fell within the range of 37·50th and 62·50th percentiles.

RESULTS

The mean and standard deviation were calculated for academic achievement in respect of the three anxiety groups, namely high manifest anxiety, average manifest anxiety, and low manifest anxiety. The computed statistics have been presented in Table 1 that follows :

Table-1 : Mean, and Standard Deviation for Achievement in respect of High, Average and Low Anxious groups.

Group	N	M	SD
HAM	46	338.73	33.96
AMA	52	348.35	36.88
LMA	22	334.05	41.86

Table-1 shows that highest mean of academic achievement was found average manifest anxiety group (AMA) and the lowest mean academic achievement for the low manifest anxiety group (LMA). But the highest value of standard deviation was obtained in respect of low manifest anxiety group (LMA) and the lowest value of standard deviation in respect of high manifest anxiety group (HMA).

Table-2 : t-Values for the Differences in Means of Academic Achievement in respect of High, Average and Low Anxious Groups.

Comparison Groups	Mean Difference	t-Value	Significance
HMA-AMA	9·62	1·31	NS
HMA-LMA	4·68	0·411	NS
AMA-LMA	14·30	1·66	NS

(NS=Not Significant at .05 level of confidence)

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The above table exhibits that none of the three t-values came out to be significant even at ·05 level of confidence. Thus the null hypothesis was accepted and it was inferred that high, average and low manifest anxiety groups of high school students do not differ significantly from each other with regard to their academic achievement.

DISCUSSION

The findings of the study reveal that there are no significant differences in academic achievement of High, average and low manifest anxiety groups. This lead to the conclusion that the manifest anxiety cannot be regarded as a determinant of academic achievement of High School students. This conclusion may by justified in view of the fact that academic achievement is a function of multiple factors. Intelligence being the most potent factor might have influenced the relationship of manifest anxiety and academic achievement of the High School students.

Since intelligence variable was not controlled in the present research, it appears that due to this reason, differences in academic achievement have not emerged out. This implies that for better understanding of the relationship of manifest anxiety and academic achievement one should control the factors which mediate the relationship of the variables.

No doubt, the findings are getting support from some researches (Crooms and Endler, 1960, Singh, 1971 ; Singal 1974 and Ganguli, 1983), still the investigators of the present study feel that only the research conducted in some sophisticate design can highlight the actual relationship of manifest anxiety and academic achievement.

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A Study on the Relationship of Adjustment Problems in Normal and Handicapped Adolescent Boys

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In the present study an effort was made to find out the relationship of adjustment problems in normal and handicapped adolescent boys. The sample compries of 100 *normal and* 100 *physically handicapped boys-*50 *from low income and* 50 *frome high incom, from each category. For this purpose Bell's adjustment inventory which has* 425 *questions/statements regarding home, health, social and emotional development was used as it a personality inventory. The data was statistically analysed with the technique Correlation Coefficient. By the results it was found that these adjustment problems are interrelated. A high correlation was seen among four areas of adjustment. Home is the area which is influencing the adjustment among other areas more than anything else.*

INTRODUCTION

Adolescence is a process rather than a period, a process of achieving the attitudes and beliefs needed for effective participation in society (Rogers, 1971). It is a period of physical development, a chronological age-span and a socio-cultural phenomenon. It composes half the growing period of a man, it is the only stage after birth in which the velocity of growth normally increases. This growth furnishes the basis for emotional social, intellectual maturity (Behman, 1979). When adolescence itself is a period of stress and strain and it accompanies with a handicap, it will have more problems. Millions of teenagers and young suffer from congenital defects, cerebral palsy and orthopaedic conditions. The physical disability impairs not only moter functions but also sensory, intellectual, behavioural, social and emotional functions. Thus, effect of a physical handicap penetrates all aspects of the individual growth, development and adjustment.

The major adjustment problems faced by all adolesents are mainly regarding their home, health, emotional development and social development. These four areas of adjust are very important for the individual's growth and development. These are inter

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related and influence. one other. Whether an adolescent is a handicap or not, he has to face one or other problems of adjustment at home, school and society in addition to problems in the areas of emotion and sex (Pohekar, 1970). Hence the study was undertaken with the objective of finding out the following :

1. Are the adjustment problems interrelated ?

2. Do they very in their relationship when tested according to income levels and handicap.

EXPERIMENTAL PROCEDURE

Selection of the area : Three institutions namely, Christian Medical College Hospital, Vellore, A. P. Physically Handicapped Artists Welfare Association, Hyderabad and Sri Ramakrishna Mission Vidyalaya Arts College, Coimbatore were selected due to the availability of the sample.

Selection of the Sample: The sample comprised of 100 normal and 100 physically handicapped adolescent boys-50 from high income group (Rs. 1,300 and above month) and 50 from low income group (upto Rs. 600/-/month) from each category. (India year Book, 1979). They belonged to 18 to 20 years and this age group was selected as it is the most impressionable age and the adolescents have many problems also (Grinder, 1976).

Selection of the Method : Bell's adjustment inventory which is one of the personality inventories was selected. It is a standardised questionnaire which is useful for collecting information on various aspects of the theme in hand, and evaluating the respondensts accordingly (Good and Hott, 1957). It consists of 125 questions/statements in the areas of home, health, social and emotional adjustment. The statements/questions were in English but they were also translated into Tamil for the study.

Conducting the Study : The investigators personally approached the samples and distributed the questionnaires. They were asked to think and answer carefully and tick against 'Yes' or 'no', The questionnaires were collected from the sample immediately after filling them.

Analysis of the Data : The collected data for the study was tabulated analysed statistically. The statistical technique used was correlation coefficient.

RESULTS AND DISCUSSION

The relationship of adjustment problems was analysed statistically for low income and high income separately and then a comparison between these two income groups was also done.

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1. *The Relationship of Adjustment Problems in low income group.*

Table-I : The Relationship of Adjustment Problems in Low Income group.

S. No.	Areas of Adjustment	Normal (N=50)	Handicapped (N=50)
1.	Home Vs.Health	0·6094 *	0·6055 **
2.	Home Vs. Social	0·2314 NS	0·2718 NS
3.	Home Vs. Emotional	0.6129 **	0·6150 **
4.	Health Vs. Social	0·2912 *	0·3363 *
5.	Health Vs. Emotional	0·6097 **	0·5870 **
6.	Emotional Vs. Social	0·3565 *	0·3677 **

** Significant at 1 per cent level * Significant at 5 per cent level NS Not Significant.

High positive correlation was seen between home and health, home and emotional and health and emotional problems for the normal adolescents from low income group. There is no relationship between home and social adjustment. When the intensity of the of the reationship was examined, it was fonnd that the home and emotional problems possessed maximum correlation followed by health and emotional, home and health, social and emotional as well as health and social. For the handicapped adolescents high correlation was found in emotional and social areas in addition to above mentioned areas. The home adjustment determines the emotions which in turn has a deep impact on health and social problems. This trend is also noted for both the normal and handicapped adolescents in the low income group.

2. *The relationship of adjustment Problems in the high income group.*

Table-II : The Relationship of Adjustment problems in High Income Group.

S. No.	Areas of Adjustment	Normal (N=50)	Handicapped (N=50)
1.	Home vs. Health	0·6023 **	0·5800 **
2.	Home vs. Social	0·2477 NS	0·2544 NS
3.	Home vs. Emotional	0·5988 **	0·5896 *
4.	Health vs. Emotional	0·2496 NS	0·2935 **
5.	Emotional vs. Social	0·5985 **	0·5794 **
6.	Health vs. Emotional	0·4013 **	0·3794 **

** Significant at 1 per cent level. * Significant at 5 per cent level, NS Not significant.

For the normal and handicapped adolescents of high income group there was significant positive correlation between home and health, home and emotional, health and emotional, emotional and social problems, same as that of low income group. No

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correlation was found between home and social adjustment. It clearly shows that the different areas of adjustment are inter-correlated, each one effecting the adjustment in the other area.

3. *The relationship of adjustment problems in low and high income groups.*

Table-III : The Relationship of Adjustment problems in Low and High Income Groups.

Sl. No.	Areas of Adjustment	Low income (N=100)	High income (N=100)	Normal (N=100)	Handi-capped (N=100)
1.	Home Vs. Health	0·3429**	0·7821**	0·7132**	0·5794**
2.	Home Vs. Social	0·1590NS	0·2948**	0·3257**	0·2689**
3.	Home Vs. Emotional	0·3710**	0·7716**	0·7077**	0 5872**
4.	Health Vs. Social	0·3502**	0·4390**	0·3748**	0·3122**
5.	Health Vs. Emotional	0·6383**	0·8285**	0·7600**	0·6025**
6.	Emotional Vs. Social	0·4125**	0·5021**	0·4490**	0·3857**

** Significant at 1 per cent level NS Not significant.

Regardless of income level and handicap a highly positive correlation is observed for problems in all the selected areas except home Vs. social problems of the low income group. With regard to their preferential positions in influencing the maladjustment in the remaining areas, the following order was obtained for the handicapped. Health Vs. emotional topped the list followed by home and emotional, home and health, social and emotional, health and social and home and social. All the correlations were highly significant.

4. *The relationship of adjustment problems for the entire sample.*

Table-IV : The relationship of Adjustment Problems for the Entire Sample.

S. No.	Areas of Adjustment	Total Sample (N=200)
1.	Home vs. Health	0·5910 **
2.	Home vs. Social	0·2573 **
3.	Home vs. Emotional	0·6089 **
4.	Health vs. Social	0·2979 **
5.	Health vs. Emotional	0·6029 **
6.	Emotional vs. Social	0·3908 **

** Significant at 1 per cent level

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Here again high correlation was observed among the different areas of adjustment To put everything in a nutshell whether one is normal or handicapped, whether he belongs to low income or high income group the four areas of maladjustments are clearly seen as a set of interrelated, interlinked and indispensible areas being responsible for the variation within or among themselves.

CONCLUSION

A high correlation was seen among four areas of adjustment such as home, health, social and emotional. Each one is influencing the other. Home is the area which is influencing the adjustment in other areas of adjustment. Hence proper care and guidance should be given to all adolescents. The parents need to be educated to provide the required guidance to promote a sound and wholesome life to all adolescents and specially to handicapped.

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Asain Journal of Psychology and Education
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Parent's Role in Educational Development

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School system, since its very origin, was developed to educate the children of the society. But with the lapse of time, the role of school extended in shch a manner that in advanced countries, it is being utilized as substitute of home. Its substitution has solved many domestic and family problems. The child is away in school unabashed by family tensions and disturbances. In highly industrialized society, the very existence of the child amongst the married couple has become a matter of serious concern. It was difficult for parents to manage his care and at the same time efficiently fulfil their professional responsibilities. An alternative as 'baby sitter' was experimented for sometimes which still continues to work. But this very institution had created many serious adjustment problems for the child as well as for the parents. The study of Ruthnamma (1979) amply suggests that children who were deprived of parental care and were kept under the sponsored care (baby-sitter or child-care centre) were found to be emotionally abnormal at the age of puberty. At the adolescent stage, they were found to have high incidence of sex perversions. So this alternative is being replaced by some other media and it was found that in place of private media, the social media, like school, would be much more safer and healthier in its effect upon the child.

Emergence of school as substitute of home has relieved the parents from many anxieties. They also feel assured of the cognitive and affective development along with the development of sociability. There are a number of studies, which reveal that social maturity, social adjustment and sociability are found to be higher amongst those who have stayed longer in the schools. There is no doubt that school, as a formal institution can contribute a lot in the child-development. But that is possible only when the formal model of school by and by is replaced by non-formal and familial models. Experiments, in this direction, are being conducted which are evident in the names like Mother's Home, Children's House, Mammi's School and My Home, etc.

The above discussion indicated the diminishing importance of family life and its emergence in school situations. But this trend in available only in advanced industrialized countries where the purchasing capacity of parents for education is high. Here in India, school is still a formal institution, where child is supposed to stay and work for nearly six hours a day. Right from the beginning, he is conditioned to look at school as something or some place out of his family circle. The teaching is mostly

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formal. It is designed in such a manner that child never acquires an identification with school or any personal relation to school. In such a situation, whatever instructional controls are applied upon him, he is bound to sumit to them. A small boy of hardly six or seven years has to fight his lonely battle in the school. His failure is his own failure. He takes it into his heart and feels that his total personality has failed. Here at school, he starts feeling as if he has his own personality ; he is an independent individual. He comes face with the reality that he has to prove himself his worth in this harsh-hard world with his own efforts.

Keeping this mental frame of the child in view, the situation of the Indian child is all the more pathetic because the majority of parents are illiterate. They do not know the importance and seriousness of education of the child. They cannot help him. Those who are educated, they don't have any culture of proper child-care. Probably, there is no programme of parental education anywhere in India. It has been indicated by Gael (1980) that in the Indian situations, education is a sponsored activity. The government arranges for educational institutions and citizens are persuaded to send their children to schools. Because of this, in general, parents take the role of fee-payee. They don't feel any urge or urgancy in contributing their responsibitity in the educational growth of the child. Even the parent-teacher associations exist in a very inifitations ; however, they function as formal gathering to exchange pleasentries. This has become general ethos and so the student does not solicit cooperation from the family. It is interesting to note that a host of researches conducted by psychologists have univocally stated the need and significance of the contribution of the family and its atmosphere in the educational development of the child. Psychologists believe that for a child the first person acquaintance is mother but bacause a large majority of mothers are illiterate therefore, they fail to show any active concern towards the educational development of the child. Another significant acquaintance is father and in majority of cases the parents feel that the educational development is the responsibillity of the school, and so they neither show any concern nor any care. Their only concern is about the success and failure of the child. The consequences are very serious. The parents get extermely shocked when they find that their ward is stagnating at one level for a long time. Their concenrn usually expresses in tirms of wastage of money. Very few parents feel concern about the future development of the child. Rawat (1979) was correct when he observed that discontinuities in the educational pursuits of a large number of students, can be stopped if parents show proper care and concern about their ward when needed.

Hence it is imperative to understand and analyse the effect of parental encouragement upon the educational development of the students. Especially the term parental encouragement is slightly new in researich perspective. But the researchers like peel (1958) Bow (1959), Ringle (1905) have used thie concept as concern. But it was used in the context of relationship of parents towards their wards. Basically, Ringle (1965) designed a study in which he tried to collect the incidents of parental inquiry about the students from their school authorities and found that parents, who have more concern about their

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children, have better development of education in their wards. He come to this conclusion that educational development is multiglication function of the parental concern and school concern. But the study of Bow (1959) did not confirm the findings of Ringle. Probably, it was the Bow's sample consisted of two diametrically opposite groups students without parents and students with parents. In his study, the parentless studeuts, were found to be educationally more advanced and so he concluded that pareut-concern is not a critical factor in the educational development of the child. The whole study lacks in psychological insight. The children without parents have to be self-dependent because of the painful perception that there is none to lean upon.

Shirley (1950) has found a sharp psychological maturity amongst the parentless children. Thus, the prablem is yet unresolved and so it is worthwhile to examine the role of parental encouragement in the educational development of child. it is all the more important because a very strong effect at the national level is being done by the government and parent agencies to increase the population of the educated people. Education has become a very strong instrument of social change and the traditional society like India has to maintain its democratic structure only when its population is properly educated. Moreover, it has been found that the phenomenon of wastage and stagnament is closely related to parental negligence. Similarly, discontinuties in education are the creations of negligent parents. A comprehensive study reported by Rene (1980) attributes the phenomenon of anti-social behaviour amongst the pre-adolescent students to the parental negligence. A study by Chau (1981) found that people, having contributed significantly in different fields of social life, have enjoyed a very encouraging and sympathetic parentage and, therefore, it is logical to believe that parental encouragement does contribute in the educational development of the child. But what are its proportions and how far are these really correct, has to be examined.

To plnpoint the whole discussion, a study should be conducted to find out the answer of the questions. Does parental encouragement affect the educational achievement of the students ? If it does, than how far a positive parental encouragement is available to the child ? If it does not, than can we throw the entire responsibility of educational development upon the school ?

As discussed above the theme has not yet been handled by social scientists of if a study is attempted on the above theme it will fill up the gap of knowledge in ihis field. Over and above, it will examine the role of the family played in the education of the child so, it will lead to better understanding of our educational dynamics. The contributions that it may make, are listed below :-

1. The analysis and results of the study will highlight the role of parents and so a modification in the system of school can be effected by making the associations of parents and school an obligatory responsibility. Such introduction of parents to school system will generate two types of effects. Firstly, the school and its authority will understand the context of the child more clearly and deeply and so they will be in a position to solve many behavioural problems which go unsolved in school system. Secondly, the parents will understand the need and necessity of their care and encouragement which will be highly beneficial to the growth of the child.

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2. Perhaps, the phenomenon of wastage and stagnation, which accounts for a very large proportion of wastage of energy and resources, can be understood in proper perspective and the children, who suffer from the negligence, can be given a special treatment which is available in other countries under the scheme of socialization. It is just possible that the phenomenon of wastage and stagnation, which accounts for 25 to 50 percent educational casualities, may be arrested if a pragmatic programme of enlightening the parents is launched.

3. This study can enlighten the teachers to understand the child and his peculiarities in proper perspective and to plan their own behavioural dynamics accordingly.

Many international agencies have invariably reported about the high incidence of abronmality and a slow learning amongst the students of the underdeveloped countries In some longitudinal studies, conducted by Shilke (1910), Morgan (1910) and Donald (1981), it has been reported that the anti-social behaviour, at adolescent stage, is the operational effect of the parental negligence or harshness or deprivation that one feels infant days. This has also been suggested that child fails to concentrate his physical, mental and emotional resources upon studies if he is not shown the behaviour of acceptance and approval by those whom he holds significant. Thus, in a way, this my act as the stock of knowledge and facts in this field. Moreover, this study has a pragmatic direction in view because the parental enchuragement has been studied directly in its effect on the educational development of child. Although nothing can be said with certainty, but those, who have studied the area of wastage and stagnation at primary and secondary levels, have invariably made oblique references to negligence of parents.

The trend in the educational worked of educating every citizen for the survival o of democratic nation is dependent upon it. The ambitious programmes of adult education, non-formal education, population education, environmental education, mass-media exposure and the education for the nation are being initiated by every enlightened government. My own presumption is this that if within the framework of these campaigns, the proper knowledge of parental role in education is given, however, small it may be, it might arrest the growth of wastage and stagnation at the school level.

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Book Review

1. MacDonald, K.B. (Editor) : **Sociological Perspectives on Human Development.**, 1988, 17 Figs., 13 Tables, XV, 405 Page, New York-Berlin-Heidelberg-London-Paris-Tokyo : Lpringer-verlag.

This is one of the unique book which deals the study of behaviour within the frame work of contemporary evolutionary biology. In other words this is the unique book on Sociobiology. The book provides a wide varieties of old and new problems in Development Psychology. The field of Sociobiology is new one and constantly changing field which is more sophisticated both the oretically as well as methodologically. The fresh section of this book written by MacDonald, Charlesworth and Chisholm is devoted to the theoretical issues and interfaces between sociobiology and Developmental Psychology. In brief, the Part I "Theoritical Issues' provides comprehensive picture of Developmental Human Sociobiology and developmental evolutionary of Humans.

The part II of this book provides the traditional topics of Developmental Psychology with the illustration. How far sociobiological theory shed new light on traditional areas of developmental psychology as well as to present new testable hypotheses regarding human development. This part consists of five chapters. In which, krebs, et al., review the researches on the evolution of self-knowledge and self-deception, MacDonald on Sociobiology and the cognitive-Development at Tradition ; Segal presents a sociobiological approach towards Cooperation, Competitions and Altruism in human Twinship and Weisfeld and Billings provide some critical and remarkable observantions on Adolescence.

The Part third, which is related to the sociobiology of parent-child Interaction, is one of the most signifiant part of this book. This provide sociobiogical and psychological new point on the importance of the family, Parenting and child moltreatment.

Actually this small volume provides a large extent of matter on sociobiology within the framework of developmental psychology and also indicates some valuable direction as well as exciting hyporheses to the researchers, teachers and thinkers.

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2. Wm J. Baker, L.P. Mos, H.V. Rappard and (H.J. Stam & Editors), Recent Trands in Theoritical Psychology, 1988, page 380, 1988.

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This book constitutes the proceedings of the second biannual conference of the International society for theoretical Psychology. Thirty four paper have been included in this volume and the editors rightly structured the chapters under four heading-philosophy, Methodology, and theory.

Under the heading of Philosophy eight papers have been included. Gergen presents envisiuns scientific progress in terms of alternating periods of meaning stabilization and transformation in his paper, 'The concept of progress in Psychological Theory'. Tolman presents a materialist Perspective views on Theoritical Unification in Psychology and recognizes a crises of disunity in Psychology.

Again eight papers have been included under the heading of Matatheory. Danziger presents scientifically and systematically, by may of a historical case study, to the ontological and theoritical presuppositions informing methods of inquiry. The mentionable point here that the Harewijk's interpretation styles of Psychologist. and their consequences for Psychology in which he draws attention that methods and theories are informed by ontological presuppositions, with reference to the representationist and presentationist.....

Under the heading of Methodology, Giorge describes 'validity and Reliability from a Phenomenological Perspective', whereas Rappard pointed out his views on History and system, and Social Psychology. Van Groet is concerned with describing a model of change in his paper entitled 'the concept of transition in Developmental theories'.

Under the final heading of Theory, nine papers have been included. out of nine papers, two papers especially draw my attention. Kose and Heindel presents critical evaluation on Piagetion theory in which they focus on 'activity of the subject' instead of the' formation of cognitive structures'. Yeudall presents a three dimensional modal of the Brain and Psychopathology, in which the examplifies the interdependence of theory, clinical practice and research.

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3. **Psychology In Contemporary Sport** : (1989) Bryaat J. Cratty. New Jersey : Prentice Hall. PP. 338.

Probessor Cratty is an authority on Sports Psychology who combines in himself a remarkable Physical Educationist, Teacher, Researcher and author. This (third) edition of a book which has been translated into Chinese, Russian, Portugese and other languages includes material which is excellent in every sense of the word. The range of fields covered herein, the inclusion of material and very systamatic organization of the research an applied experiences in sport make this book a must for the educators, researchers and users of Sports Psychology. The details of contents can give a clear idea about the exhaustiveness and the depth of the book.

1. Introductiod, 2. The History of Sport Psychology, 3. Personality, 4. Arousal-Activation : Performance and Emotión, 5. Psychology and Psychological Effort, 6. Attenion Concentration, 7. Anxiety : Dimensions and Evaluation, and 8. Anxiety : Cause and Adjustment Strategies, 9. Anxiey : Coaching Intervantions, 10. Cognition and Imagery 11. Mental Activity Athletics, 12. Motivation to Engage in Sport, 13. Motivations and Athletic Episodes, 14. Aggression and Hostility, 15. Coaching : Leadershtp Dimensions in Sport, 16. Social-Psychological Dynamics of the Team.

This book commands appreciation and recommendation on its merit, relevance and grasp of Sport Psychology.

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Personality Development (1989) *C.L. Kundu*- New Delhi : Sterling PP. 260 Rs. 225/-.

Personality is certainly a very vital & vast area involving all kinds of approaches theories methodologies and ideologies. But Personality Development is a very specific and pointed field. Any attempt to present *various indian invesitgation representative of the experimental treatment of important topics cancerning personality and trying to reflect contemporary trends in Psychology, Education and Sociology* has to be evaluated in terms of its claims and the expectations of an established e ducationist.

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A Study of Effects of Intelligence and Socio-Economic Status on the Needs of Students

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INTRODUCTION

Human beings are dominated by the various types of needs. They try to fulfil their basic needs like fooding, clothing and housing. But there are some of the social, economical and psychological needs which influence the personality of an individual or child. The negligence of those needs leads to the improper growth of the child. Later on, it causes the dissatisfaction, maladjustment, frustration and other problems in a child. For avoiding these problems it is essential that the various needs of children must be analysed and studied. Several relevant studies have been conducted concerning to needs. Bhatnagar (1966) conducted a study and showed that the over achievers are comparatively characterised by a high degree of *n*-achievement, *n*-affiliation, *n*-nurturance and *n*-dominance whereas under achievers showed a quite high degree of aggression. Similary O'Shea and Arthur (1970), Metha Prayag (1969), Goody and Hinely (1967) conducted the studies on needs which are useful in understanding the child and his potentialities. In the light of it, the investigator took up the above quoted study for investigation.

Objectives of the study : This study was undertaken with the following objectives :

1. The main objective of the study was to compare the differences in scores on need-difference and need-order among boys and girls at high and low levels of intelligence and socio-economic status.
2. The sceond objective of the study was to find the significance of interactions between sex and intelligence, sex and socio-economic status, intelligence socio-economic status.
3. The third objective of the study was to find the significance of interactions among sex, intelligence and socio-economic status so far as the needs under investigation are concerned.

Tools : In the present study, E. P. P. S. Scale was used and the investigator sorted out items relating to two concerned needs. Secondly, Dr. S. Jalot's Group

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General Mental Ability Test was administered for measuring the intelligence of the students. Thirdly, B. Kupuswamy's socio-economic status scale was used for determining the scoio-economic status of the students.

Sample : The sample was drawn from 9th class students from the various schools of district Kurukshetra of Haryana state. Total number of students were 400 in which 200 were boys and 200 girls.

Procedure : The data were collected relating to some E. P. P. S. needs, intelligence and socio-economic status by administering the above said tools. The intelligence and socio-economic status scores were tabulated and 33rd and 67th percentiles were found out for determining the low and high levels respectively. The scores were tabulated level-wise and 15 students were taken in each category. The scores were analysed for the comparison of the means of the each level. For this purpose, the investigator used 'Three Way Analysis of Variance' and found out *F*-ratios of different variables and their inter -actions as given under :

Table-1 : Complete analysis of variance of scores on N-Defference scale of E. P. P. S.

	Sources of Variation	Sum of squares	df	Mean squares	*F*
1.	Sex	88·42	1	88·42	3·984
2.	Intelligence	12·68	1	12·68	—
3.	Socio-Economic status	8·02	1	8·02	—
4.	Sex × Intelligence	7·00	1	7·00	—
5.	Intelligence × SES	6·00	1	6·00	—
6.	SES × Sex	39·66	1	39·66	1·789
7.	Intelligence × sex × SES	9·15	1	9·15	—
	with insets	2483·07	112	22·17	—

Table-2 : Complete analysis of variance of scores on N-order scale of E. P. P. S.

	Sources of variation	Sum squares	df	Mean squares	*F*
1.	Sex	1·40	1	1·40	—
2.	Intelligence	39·67	1	39·67	1·856
3.	Socio-economic status	31·00	1	31·00	1·450
4.	Sex × Intelligence	2·42	1	2·42	—
5.	Intelligence × Socio-economic status	0 02	1	0·02	—
6.	Socio-economic status × sex	3·02	1	3 02	—
7.	Sex × Socio-Economic Status × Intelligence	21·65	1	21·65	1·013
	with insets	2393·94	112	21·37	—

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FINDINGS

1. (a) The main effects of sex was found significant at ·05 level of significance for need difference only.

   (b) *F*-ratio for the main effects of sex was found insignificant at ·05 and ·01 levels of significance for the need-order.

2. The main effect of intelligence came out to be insignificant at ·05 and ·01 levels of significance for both the undertaken needs.

3. *F*-ratio for socio-economic status was found insignificant for need-difference and need-order at ·05 and ·01 levels of significance.

4. The interaction between sex and intelligence variables came out to be insignificant at ·05 and ·01 levels of significance for both the needs.

5. The interaction between intelligence and socio-economic status came out to be insignificant.

6. Similarly the interaction between socio-economic status and sex, the interaction among all the three variables, *i. e.*, Sex, intelligence, and socio-economic status and with in sets was found quite insignificant.

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Various Dynamisms of the Human Mind-Through A Psychological Study of Othello

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Through a Psychological study of "Othello" the author vividly describes the various Psychotic aberrations of Othello. The Psychotic reactions of Othello like Delusions of Persecution, Inferiority complex, Hypochondriacal Stage, Auditory Hallucination, Delusions of Grandeur, Impariment of Memory and Intellectual Faculties, Suspicion and Mistrust, Superiority complex, Distorted Cognitive System, Megalomania, Doubtfulness and Suicidal tendencies are clearly portrayed by the author. Self-importance gradually turns into megalomania and inferiority (of appearance) and possible impotence stemming from it turns into perception of infidelity in the partner (love object) through the mechanism of projection. The libidinal love energy turns into vengeance. The characterization of Othello and the various Psychopathological symptoms formed in him are Psychologically sound. So it can be concluded that Shakespeare's intuitivenotions of Psycho-patholoical symptom formation are validated by the findings of modern Psychology.

A Psychological study of 'Othello' makes one believe that Shakespeare succeeded in depicting the various dynamisms or mechanisms of the human mind. In 'Macbeth' Shakespeare presented the Obsessive Compulsive Neurotic Lady Macbeth, who later became a Schizo phrenic (Jayakumari, 1990). But in his play 'Othello' Shakespeare exhibits the picture of a Psychotic (Psychotic is an individual affected with Psychosis. Psychosis is a mental disorder that interferes seriously with the usual functions of life; Sarson, 1976) who is suffering from Paranoia.

PARANOID REACTIONS

Delicious of persecution

Of all the Shakespearean tragedies 'Othello' is the most painful, the most exciting, the most terrible and horror stricken, because here Shakespeare presented an innocent, meek, docile, submissive, unasserting even in self defence, inexperienced extra ordinarily sweet and beautiful Desdemona, a victim of Othello's inferiority complex and delusions

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of persecution-Delusion is a perception contrary to reality. It is irrational and obstinate belief in an idea. It denotes a system of irrational beliefs that the individual actively defends (Shanmugam; 1981).

INFERIORITY COMPLEX

Othello is a man of various passions such as jealousy, revenge, suspicion, anger, sorrow and hatred. Othello has inferiority complex-which is the root cause of suspicion-because he is a moor. When a person feels inferior to others he tends to cover up that feeling of inferiority by creating superiority. Similarly, Othello also wants to cover up that feelings of inferiority by exhibiting his superiority. This is evident from the fact that immediately after marriage he went to Cyprus to defeat the Turks, to show his victory, military glories and feats of bravery, chivalry, leadership, superiority, courage and valour to his sweet Desdemona.

Inferiority generally leads to impotence and inability to perform the sex act. This leads to repression of sex urges. Othello's running away into the battle field after marriage seems to be Shakespeare's symbolic depiction of Othello's impotence. Impotence and repressed, and unsatisfied sexual cravings manifest in consciousness as the perception of immorality and infidelity in the partner (love object) through the mechanism of Projection.

Desdemona is a Venetian, while Othello is a moor—an African General. So he is jealous of her beauty. When he has surrendered to jealousy, Othello behaves like any lover who fears that such a beautiful wife will deceive him. In addition to this, Brabantio's (her father's) words contributed his jealousy and suspicion.

"Look to her, Moor, if thou hast eyes to see ; She has deceived her father and may thee".

Because of his jealousy toward Desdemona's beauty Othello thinks that because she betrayed her father, one day she will deceieve him also. Besides, Othello was older in age to Desdemona. This is clear from Brabantio's words :

A Maiden never bold;
Of Sprit so still and quiet, that her motion
Blush'd and herself, and she—in spite of nature,
Of years, of country, credit, everything
To fall in love with what she fear'd to look on !

The colour of the skin and his age make Othello inferior to the young and beautiful Desdemona.

His feelings of inferiority is seen in his soliloquy :

"Haply, for I am black
And have not those soft parts of conversation
That chambers have, or for I am declined
Into the value of years,—
She's gone".

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In another instance also, Othello's inferiority complex is expressed in his soliloquy about Cassio.

"He hath a daily beauty in his life ; That makes me ugly !"

Othello hates the handsome Cassio who makes him look ugly.

PARANOIA

Othello is a Paranoiac—one who suffers from Paranoia or Paranoid. Paranoia signifies a Psychotic disorder characterized by extensive aystematized delusions with little deterioration or general dementia—Dementia is non-specific but lasting deterioration of emotion or intellectual powers (Rimm and Somervill, 1977). Most usual are delusions of persecution, of grandeur or of both. According to Kracpelin (1937), Paranoia denotes systematized delusions without accompanying personality deterioration.

It is noteworthy to say that often shy, solitary, and suspicious persons exhibit persecutory delusions. The excitable and egoistic wear grandiose. They are over-conscientious and eccentric. They show a prediction for religious topics.

There are four main stages of Paranoia.

HYPOCHONDRIACAL STAGE OR A STAGE OF SUBJECTIVE ANALYSIS

Othello analyses himself as inferior because he is a moor, he does not possess the refinements of polished courtiers and he is older to Desdemona. This is seen from Othello's soliloquy :

"Haply, for I am black
And have not those soft parts of conversation
That chamberers have, or for I am declined
Into the value of years,
She's gone."

In this primary stage of Paranoia, the patient becomes self-centred, believes that remarks he overhears or things he sees and hears have some special significance and are directed to him personally. He resents such happenings, he worries about them, sees meaning in them which were never intended, becomes resentful, avoids his friends and colleagues and shows an inability to concentrate on his work as he had done formerly. Here, Othello-the Paranoiac believes what Iago says about his wife Desdemona's false charge of infidelity, false allegations about her unfaithfulness and unchastity.

PERSECUTION

In this stage the morbid introspection which has been described is replaced by the development of delusions of persecution which dominate the Paranoiac's life and conduct. All his suspicions are transformed into beliefs so that he may employ all manners of devices to protect himself from his supposed persecutors. Occasionally he may turn on his persecutors and attempt to right his supposed wrongs by criminal

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action. Othello the Paranoiac thinks that he should kill Desdemona because she betrayed him and in future she should not betray other men. This is clear from these lines.

"I is the cause, it is the eause, my soul !
let me not name it to you, you chaste stars !
It is the cause. Yet I'll not shed her blood,
Nor sear that whiter skin of hers than snow.
And smooth as monumental alabaster.
Yet she must die, also she'll betray more men.
Put out the light, and then put out the light..."

IMPAIRMENT OF RATIONAL THINKING

Othello-the Paranoiac-is incapable of rational thinking. His thinking is impaired. He does not spend the time to see whether Iago's false charge against Desdemona were true—Desdemona pleaded Othello to call Cassio and clear his doubt about the hankerchief. Desdemona says "I have n't given the hankerchief to Cassio, he must have discovered it somewhere ; just call him here and let him speak the truth." This is clear from Desdemons a soliloquy :

"He found it then
I never gave it him : Send for him hither ; Let him confess a truth."

AUDITORY HALLUCINATION

Justify his claims may be extremely. Although the evidence Othello advances to tenuous and inconclusive, he is unwilling to accept any other possible explanation and is imperious to reason. He may be convinced of his wife's unfaithfulness. Arguments and logic are futile. Such delusional states are not infrequently complicated by a hallucinosis (The state of having recurrent hallucinations—The perception of an external object in any sensory modality which arises within the individual himself, without any basis in reality, Coleman, 1972) which may affect any of the special senses but is predominantly auditory. Othello has auditory hallucination. Actually he does not want, to kill her (his last kiss on Desdemona's lips) but he hears some voices which demand him to kill her. This is clear in Othello's soliloquy, 'When I have pluck'd the rose, I can not give it vital growth, again, It must needs wither :

I'll small it on the tree (Kissing her)
Ah, balmy breath, that does almost persuade
Justice to break her sword ! One more one more.
Be thus when thou art dead, and I will kill thee
And love thee after.. On more, and this the last :
So Sweet was ne'er so fatal. I must weep."

DELUSION OF GRANDEUR

In the third stage there is transformation of the personality characterized by the expression of delusions of grandeur. In this stage it appears almost as if a complete

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transformation of the personality has occured : The persecuted man becomes the grandiose man, (grandiose refers to delusions of greatness and importance) and he does so in his attempt to find an explaination for it. Othello thinks that he is the only great and aptman who is able to give punishment to Desdemona. Othello explains and rationalizes his deed. (Rationalization is an effort to distort reality in order to protect one's self-esteem. It is used as a cover up for mistakes, misjudgements, and failures. It tries to justify behaviour by reasons that are made to sound rational, Kaplan *et al*, 1980). Othello justifies that he must kill her, for otherwise "she would betray more men."

IMPARTMENT OF MEMORY AND INTELLECTUAL FACULTIES

A certain degree of mental deterioration may also occur in the case of paranoiac, but it is surprising that the memory and general intellectual faculties remain remarkably intact. This is true in the case of Othello also. Othello falls in a trance when he hears Desdemona's unchastity from the mouth of Iago. This is evident from Othello's and Iago's Soliloquy : "Nature would not invest herself in such shadowing passion without some instruction. It is not words that shake me thus. Pish ! Noses, ears and lips—Is't possible ?—Confess—hankerchief !—O devil !"

Iago says :

"My lord is fall'n into an epilepsy. This is his second fit ; he had one yesterday".

SUSPICION AND MISTRUST

Suspicion and mistrust—two characteristics of Paranoia—arise as a result of faulty perception and interpretation. Cassio went when he saw Othello approaching Desdemona. Then Othello asks Iago "was not that Cassio parted from my wife". In addition to, this Desdemona started pleading for Cassio. So Othello's faulty perception and interpretation gives way to suspicion and mistrust to Desdemona.

FREUD'S VERSION ABOUT PERSECUTION

According to Freud in the genesis of delusions of persecution the persecutor is the one who, before the illness, had a great influence on the emotional life of the patient. The person who on account of his supposed persecutory activities, is hated and feared, is the one who was formerly loved and revered. This is true in the case of Othello also. Othello thinks that Desdemona is the persecutor, who had a great influence on the emotional life of Othello and who is loved by Othello so much.

Freud then came to believe that all the recognized forms of Paramoia could be represented as contradictions of the proposition. "I (Othello) love her (Desdemona) and she is not loving me as much as I love her".

DELUSION OF PERSECUTION

The contradiction in this case is "I do not love her, I hate her". Here, the mechanism of projection (Projection is a Psychological process which is an attribution of one's own faults and shortcomings to others. Dulte and Nouricki, 1979), comes into

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play and instead of saying "I hate her" a transformation takes place ; "she hates me. which justifies my hating her". Then the contradiction really becomes "I do not love her. I hate her because she persecutes me. The persecutor (Desdemona) is always the former (Othello) loved one.

EROTOMANIA

It means mania due to eroticism or erotism—several excitements, emotions, or feelings associated with sexual sensations.

The second kind of contradiction is "I (Othello) do not love him (Cassio), I love her (Desdemona)". Then the mechanism of projection causes the following change. "I notice that she loves me. I do not love him. I love her because she loves me."

DELUSIONS OF JEALOUSY

The third contradiction then becomes, not "I (Othello) love a man (Cassio), but she (Desdemona) loves him and consequence Othello suspects Desdemona in relation to all the men (Cassio) whom he (Othello) himself is tempted to love.

The jealous paranoia of men is that not "I (Othello) love the men (Cassio) but she (Desdemona) loves them (Cassio). The jealous man (Othello) therefore suspects the woman (Desdemona) towards all the men (Cassio) who please him (Othello)".

NARCISSISM

It means self love or love of the ego (The name narcissism is named after the Greekhero Narcissus who fell in love with himself).

A fourth kind of contradiction is possible, "I love nothing and no one," which is equivalent to saying "I love only myself." This is at the basis of delusions of grandeur, and may be regarded as a sexual over valuation of the ego (self).

FEELINGS OF INFERIORITY AND GUILT

The Paranoiacs are persons who are sensitive, suspicious, jealous, ambitious, shy, prudish and dreamy. Another significant feature is the frequency of a 'complex'—shame, guilt, self-consciousness, feelings of inferiority or actual guilt.

When a person is so involved in the complex then the effect of some innocent and trifling incident may be profound. Feelings of inferiority or actual guilt may be repressed and projected on individuals in the immediate environment, usually one's own love object. Feelings of inferiority may be projected equally either on homosexual or heterosexual feelings. In the case of Othello his inferiority feelings are projected on Cassio (homosexual) and Desdemona (heterosexual).

In the genesis of Paranoid states, the role of inferiority feelings is considerable. This sense of inferiority may be the result of unfulfilled overvaulting ambition or it may be associated with feelings of guilt auto-hetero or homosexual in origin. In any case, the resulting paranoid development consists first in ideas of reference, and then delusions of persecution. A sense of superiority or at least a striving for it may exist concurrently, and leads eventually to grandiose delusions.

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SUPERIORITY COMPLEX

Although the Paranoiac's feelings of inferiority are marked behind his air of superiority and self importance they are manifested in many aspects of his behaviour. In essence, the Paranoid individual is confronted with failures which in effect say, "People do not like me ; something is wrong with me ; I am inferior ; I am not good looking ; So my wife does not like me." Similarly, Othello thinks that his wife Desdemona likes Cassio-the handsome warrior—more than him—the moor.

In order to overcome the feelings of inferiority, the individual develops the feelings of superiority. This compensatory feelings of superiority sometimes presen in great force produce flattering rationalizations. Othello rationalizes and justifies this action of killing Desdemona, other wise she would betray more men in future.

The paranoiac can not admit weaknesses or mistakes but clings to the feeling that he is unique and has some important contribution to make to mankind. The defensive pattern—which relies heavily upon denial and projection projects him from facing unbearable feelings of inferiority and worthlessness

DISTORED COGNITIVE SYSTEM

Othello thinks that he is being singled out. When Cassio and Desdemona were talking Cassio left the place when Othello saw him. Othello also thinks that other people are working against him. Here, Cassio and Desdemona are working against him (Othello). In essence, he projects himself against the intolerable assumption, "There is something wrong with me". with the projective defense, "They are doing something to me". Now he has failed not because of any inferiority or lack on his part but because others are working against him. He is with good and for the progress of mankind, while "they" are allied with the forces of evil. With this as his fundamental defensive premise he then proceeds to distort and falsify the facts to fit it and gradually develops a logic-tight, fixed, delusional system.

PSEUDO COMMUNITY

Cameron (1959) has referred to this process as the building up of a Paranoid "Psendo Community" in which the patient organizes the individuals around him (both real and imaginary) into a structured group whose purpose is to carry out some action against him. As this delusional system emerges the patient often has the feeling that "Everything has become clear to me, I can see it all now". Everything comes to be interpreted in terms of this delusional system, and the most trivial events may take on an omnious meaning. Othello thinks that "I have given the hankerchief which my mother gave me, to Desdemona as a token of my perfect love. But she lost it because she doesn't love me. She and Cassio are making conspiracy to evacute me from the earth",

Even the most casual conversation of others may take a hidden and sinister meaning. When Cassio pleaded Desdemona to pray on behalf of himself to Othello, she does it. This is only quite natural.

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Othello thinks that this "Psendo Community" is not all embracing, in the sense that everybody is against him. Such feelings present the greatest threat to his feelings of adequancy and worth.

MEGALOMANIA

Megalomania is a form of madness that gives a person the idea that his importance is very great (Korchin, 1976). In many cases the attention which the individual thinks he is receiving leads him to believe that he is a person of great importance. Here, Othello drew himself up proudly and replied, "Why shouldn't they? After all, I am the world's greatest warrior". As might be expected, the particular contents of the grandiose ideas that develop is closely related to the individual's education, vocation and special interests. Othello as is thought, is not literate. He is an illiterate moor. His only interest is with arms and weapons.

DOUBTFULNESS

A person affected by Paranoia believes that he is right, that he is justified in his beliefs and that anyone who opposes his point of view is behaving maliciously or at least non-understandingly towards him. This is true in the case of Othello also. When Emile op poses Othello's point of view, he could not admit it. He thinks that she is behaving maliciously against him.

SUICIDAL TENDENCY

Lastly, the Paranoiac may develop suicidal tendencies. Here also, Othello stabs himself to death.

CONCLUSION

By Psychologically analysing Shakespeare's plays one may get an impression that Shakespeare is not only a dramatist but also a Psychoanalyst who could analyse the various personalities that existed in society at that time and who were suffering from various mental ailments.

It can be concluded that the various Psychopathological symptoms which Othello shows are those which would be expected under the circumstances in the play in a person with a personality make-up of Othello and that therefore the characterization of Othello and the behaviour pathology which he develops are Psychologically sound. Shakespeare appears to have intuitively perceived the various Psychological dynamisms of the human mind behind the symptoms shown by Othello.

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Effect of Mastery Learning Strategy on Achievement of Pupils of Varying Socio Economic Status

Dr. U. S. Chaudhry*, & Dr. Shobha Vaidya**

The idea of Mastery Learning (ML) was generated in 1920s. In this approach the amount of material learned is the 'constant' and the time is the major variable. Underlying Mastery Learning instructional strategy is an explicit philosophical perspective about teaching and learning. This perspective asserts that under appropriate instructional conditions virtually all students can learn well what they are taught. In other words, all students can 'Master' the subject material ; if the students are helped when and where they have learning difficulties ; if they are given sufficient time to achieve mastery ; and if there is some clear criterion of what constitutes mastery.

Building upon Carroll's work B. S. Bloom (1968) has transformed this conceptual 'model of school learning' into working model for classroom instruction. He argued that if students were normally distributed with respect to aptitude for a subject, and if they were provided with uniform instruction in terms of quality and learning time, achievement at the completion would be normally distributed. Further, the relationship between aptitude and achievement would be high.

However, if, students were normally distributed on aptitude but each learner received optional quality of instruction and the learning required, then a majority of students should be expected to attain mastery and there would be little or no relationship between aptitude and achievement.

So, if the learning situation could be structured to provide more appropriate opportunities to learn, and more appropriate quality of instruction for each student, then

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a majority of students, rerhaps, as many as 95 percent could be expected to learn very well and attain mastery.

The effectiveness of mastery learning has been established by a number of studies Block (1971) summarised number of studies and concluded that inspite of varying background possessed by the subjects, this strategy was effective in bringing most of the students to a high degree of achievement by the end of the course.

The present investigation is an attempt towards examining what, if any, influence the socio-economic status and sex has on the achievement of the students taught through mastery learning model.

Objective

The major objective of the study was to ascertain effectiveness of mastery learning model in terms of pupils' socio-economic status. The following hypothesis was formulated for the study :

There will be no significant difference in mean post test achievement scores of pupil belonging to high, average and low socio-economic status.

Methodology : The sample consisted of 38 pupils studying in the government school of Indore City. The sample was purposive drawn from 150 students studying in class VIth

Tools : 1. Formative tests and correctives were developed by the investigators.

2. Summative Test developed by investigators.

3. Kuppuswami's SES Scale was used.

Design : In the present study pretest-posttest group design was used.

Procedure : The students were administered on the SES scale. On the basis of their scores obtained on the SES Scale, the students were classified into high, average and low SES group. Table 1 presents the formation of group.

Table 1 : Classification of students on the Basis of SES.

	High	Average	Low	Total
Students	9	20	9	38
Total				38

Three units of Hindi grammer course prescribed for grade VI were selected as teaching content. Summative test developed by investigators was administered to the group before and after the experiment, to generate pretest and pottest scores. The duration of treatment was 20 days.

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Results : The null hypothesis 1 stated that there would be no significant difference in mean post test achievement scores of pupils belonging to high, average and low SES. The data obtained were analysed employing ANOVA. Table 2 presents the summary of ANOVA.

Table 2 : Summary of ANOVA for mean achievement scores and levels of SES of students on post-test.

Source of variation	SS	dF	MSS	F	Level of significance.
Between group	5·12	2	2·56	0·094	Not significant
Within group	945·48	35	27·01		
Total		37			

Table 2 shows that 'F' Value (df 2/35) is not significant. This reveals that the mean achievement scores of high, average and low SES pupils do not differ significantly on post test. In other words, it can be said that all the three groups are benefitted equally from the treatment of mastery learning. Table 3 presents the mean and SD for three levels of SES of MLM group pupils.

Table 3 : Mean and SD for post test achievement scores of three levels of SES of students.

Group	N	H	SD
High	9	41·88	3·71
Average	20	41·10	8·06
Low	9	41·10	3·34

Table 3 indicates that the pupils derived, almost equal benefits from the treatment, irrespective of their levels ot SES. In other words mastery learning is equally effective for high, average and low level students.

Since 'F' value 0·094 was not found significant, the said hypothesis No. 1 is retained.

The result of this study is supported by Block (1971), and Mevarech (1985).

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Keeping in view the limitations of the present study, under which it was conducted, the finding do not warrant wide generalization. It is therefore, felt the replication of this study on a larger sample is requisite to arrive at still reliable and precise results.

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An Inquiry into the Effect of Prolonged Deprivation on Anxiety of Adolescents

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Research on prolonged deprivation has witnessed substantial progress in recent years. A number of studies have been ventured to discern the impact of prolonged deprivation on psychological characteristics of adolescents. Prolonged deprivation has been shown to be meaningfully related with cognitive functioning (Tripathi and Misra. 1975 ; 1976), academic achievement (Sharma and Kathuria, 1983 ; Verma, 1988), retention (Zafar and Alam, 1986), personality (Bhargava, 1981 ; Sinha and Misra, 1982) Attribution of causes of success and failure (Jain and Suraj Mal, 1984), temporal orientation (Agarwal and Tripathi, 1980), field-dependence/independence cognitive style (Tripathi, 1983), vocational interests (Sharma and Kathuria, 1983), personal variables (Sharma and Bhargava, 1980).

Some attempts have also been made by the researchers to ascertain the influence of deprivation on human motivation. Research on motivation includes achievement motive. affiliation motive, power motive, approval motive, state anxiety, trait anxiety and test anxiety. Studies have reported positive relationship between deprivation and anxiety. For instance Misra and Tripathi (1978) reported that low deprivation group has significantly low degree of anxiety (Trait and State) as compared to high deprived and middle deprived groups.

Mohanty (1980) concluded that deprived adolescents shows more anxiety than their non-deprived counterparts. Kalplata Pandey (1984) found that high deprived girls excelled on academic anxiety as compared to low deprived girls. Tiwari (1984) found that coefficient of correlation between prolonged deprivation and trait anxiety was in positive direction. He observed that low deprived group have proved least anxious while highly deprived group appear to be most anxious. This pattern was also observed for test anxiety however the differences in anxiety levels of low, medium and high are more pronounced on measure of trait anxiety as compared to test anxiety.

Sinha and Misra (1982) viewed that deprivation and motivation are closely connected. Since satisfaction of motivation demands depends upon accessibility to resources available within the environment, deprivation can be assumed to shape and

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channelized our motives in significant ways. Having the similar line of reasoning in mind the investigator though that anxiety be the product of deprivational conditions, In order to test this assumption the present study was designed.

More specifically the study addressed to the following questions :

1. Are there significant differences between high, medium and low deprivation groups of adolescents on state anxiety ?
2. Are there significant differences between high, medium and low deprivation groups of adolescents on trait anxiety ?
3. Are there significant differences between high, medium and low deprivation groups of adolescents on test anxiety ?

METHOD

(*a*) *Sample* : Initially the sample of the study consisted of 180 male adolescents studying in XI class in two intermediate colleges of Muzaffar Nagar City (U. P.) However, analysis of the anxiety scores was made only of 161 subjects as tests of 19 students were not found worthy of inclusion due to non-completion of items. The sample was drawn by random sampling technique.

(*b*) *Tools Used* : (1) The extent of deprivation was measured through prolonged Deprivation Scale (PDS) developed by Misra and Tripathi (1975). It consists of 96-five-point items concerning with 14 interrelated dimensions of life experiences. They are : (1) housing condition, (2) home environment (3) economic sufficiency, (4) food (5) clothing (6) formal educational experiences (7) childhood experiences (8) rearing experiences (9) parental characteristics, (10) emotional experiences, (11) religious experiences (12) interaction with parents (13) motivational experiences and (14) socio-cultural experiences.

The inter-rater reliability of PDS ranges between 0·55 to ·93 with a mean of 0·91. The test-retest and split-half reliability indicates are 0·59 and 0·91. The scale was found to have acceptable degree of content validity, factorial as well as predictive validity.

(2) Anxiety was measured with the Hindi version (Spielberger, Sharma and Singh, 1973) of State-Trait Anxiety Inventory (STAI) (Spielberger, Gorsuch and Lushene 1970). Each scale (Trait or State Anxiety) of the Hindi STAI is comprised of 20 items. The Cross-Language equivalence internal consistency, test-retest reliability, and concurrent validity of Hindi STAI have been amply demonstrated in a series of studies.

(3) For measuring test anxiety of the students, Hindi version of Spielberger *et al's* (1978) Test Attitude Inventory by Sharma, Sud and Spielberger (1983) was used. There is a 20 item inventory providing a total test-anxiety score and a separate scores the worry and emotionality of test anxiety. The cross-language aquivalence of the Hindi and English Versions, internal consistency, reliability and validity have been established to the level of satisfaction.

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(c) *Statistical Technique* : The '*t*' test was applied in order to findout the significance of difference between means of the two groups at time on State, trait and test anxiety variables. Means and standard deviations were also calculated for state, trait and test anxiety scores of high, medium and low deprivation groups as prerequisite statistics for calculation of '*t*' values.

RESULTS AND DISCUSSION

Table 1 : Means and SDs on Anxiety Scales obtained by High, Medium and Low Deprived Groups.

Variable	Deprivation Level					
	High (55)		Middle (59)		Low (47)	
	M	SD	M	SD	M	SD
State Auxiety	44·87	6·96	40·66	9·34	37·87	8·23
Trait Anxiety	44·65	5·74	41·02	7·24	39·49	6·51
Test Anxiety	39·38	16·38	38·83	11·18	35·21	8·56

Table 2 : The '*t*' values obtained from Inter comparisons of Mean Scores on Anxiety Scales.

Variables	Mean Comparisons		
	HPD-LPD	HPD-MPD	MPD-LPD
State Anxiety	4·575**	2·73**	1·63
Trait Anxiety. Test	4·212**	2·98**	1·14
Anxiety	2·212**	0·27	1·88

(** Significant at ·05 level)
(** Significant at ·01 level)

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The comparison of mean scores obtained by high, medium and low deprived groups on state, trait and test anxiety scales clearly evidences the fact that there is no fundamental difference in anxiety pattern of these groups. However, it may be noticed from Table I that there is a gradual decrease in mean scores on State, trait and test anxiety scales as the level of deprivation decreases. The low deprived group shows lowest degree of anxiety and high deprived group seems to have highest magnitude of anxiety.

In order to examine the performance differentials '*t*' values were calculated and the results are shown in Table 2. It is apparent that the high deprived group differ significantly from the low deprived group with respect to state, trait and test anxiety. It is also evident from Table 2 that medium deprived group differ significantly from high deprived group with respect to state and trait anxiety only. On test anxiety medium and high deprived groups were not found to differ from each other significantly. Comparison of medium and low deprived groups reveals that the mean differences on state, trait and test anxiety were small and fell short of statistical significance, all '*t*' values being insignificant even at ·05 level of confidence.

From the present results it may be inferred that state, trait and test anxieties are found to be positively related with prolonged deprivation, or alternatively it may be asserted the prolonged deprivation influence state, trait and test anxieties to a considerable degree. This result is in consonance with the findings of Tiwari and Misra (1977), Misra and Tripathi (1978) Mohanty (1980) wherein deprivation along various dimensions of experience has been shown to play a crucial role in the development and growth of psychogenic motives.

According to Gordon (1968), the motivational characteristics of deprived people represent 'Status personality.' *i. e.* they are the kinds of behaviours which are products of the life experiences of people who occupy a particular place in the social structure. Tripathi and Mishra (1976), Sinha (1977) also hold that the deficiencies observed in deprived groups emerge from the total pattern of socialization and general interaction with the impoverished environment. In order to eradicate this malady Misra and Tripathi (1978) suggest that we should adopt two-fold strategy directed towards (1) changing the motives of deprived ones, as well as (2) modifying the attitude of those who are relatively less deprived and live in better conditions. This is a big demand which requires painstaking and sustained research and action on the part of psychologist, educationists and other social agencies as well.

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Teacher's rating as index of Academic success and failure among high school students

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The present study was undertaken to know the predictive value of teachers,' rating among successful and failure group of high school students. Self made personal data sheet with five point teachers' rating scale, ranging from very good to very bad was used on a sample of 400 (200 *boys and* 200 *girls*) *students selected from Government and Government aided schools. selection of sample was made on the basis of the marks obtained in half yearly and annual examination. Those who obtained* 55% *and above kept in 'successful group and those who failed in more than two 'subject' comprised 'failure' group. The 't' test of significance was calculated. It revealed that 'successful' and 'failure' groups differ on teachers' rating on* ·01 *level of significance.*

Generally correct and good judgements are formed on the basis amount of information, extent of interaction and definiteness of relations between perceiver and stimulus person. The presence of these three factors and long personal experience of teacher-taught relations inspired to undertake this study. Teacher's rating may work as an important index of students' academic attainment provided rating is done objectively and free of bias. There is no direct study available in this field but few empirical studies Thorndike (1920) Symonds (1931), Lott *et al* (1970), Lowe and Goldstein (1970), Sinha and Sinha (1974), gave indirect support to the author's asumption. Besides above mentioned factors the presence of moral bindings between teacher-taught relation is sure to contribute positively towards correct Judgement of the teacher.

HYPOTHESES

1. Students of 'successful' and 'failure' groups will significantly differ on teacher's rating.

2. Girls would significantly differ on teacher's rating from boys.

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3. 'Successful' and 'failure' groups would significantly differ when analysed class-wise and sex-wise.

METHOD

Sample : The sample consisted of 400 students. 200 males and 200 females 100 each in 'successful' and 'failure' groups. Samples were selected from Government and Government aided schools of Patna. The yard stick of selection was marks obtained in two consecutive examinations ; half yearly and annual. Those who obtained 55% and above in both the examinations comprised 'successful' group and those who failed in more than two subjects comprised 'failure' group.

Test used : A self made personal data sheet was used in order to gather bio-data of students. This personal data sheet included teacher's rating on a five point scale ranging from very good to very bad, on the basis of the pupil's academic attainment.

Procedure : The study was conducted in a normal class room condition. The researchers with the help of the class teacher got acquainted with the selected students in order to establish a good report with them. Both 'successful' and 'failure' groups of students of one class were asked to sit at one place. Students were acquainted with each and every item of the data sheet, and were requested to answer each and every item except the column meant for percentage of marks. After getting confirmed that students followed the instruction, they were given the data sheet and asked to start the work after getting ready signal.

Then duly filled data sheets were handed over to respective class teachers with a request to rate the student in any one category of the scale by putting mark, keeping in view his or her academic attainment.

RESULTS AND DISCUSSIONS

Table-1 Showing the frequency distribution of successful and failure groups of students on teacher's rating. (class and sex combined).

Group Scores.	Successful f	Failure f
5.	60	0
4.	108	20
3.	32	138
2.	0	38
1.	0	4
	N=200	N=200

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Table-1 reveals that among successful group 84% of students obtained 4 to 5 scores on teacher's rating. While only 10% of the 'failure' group obtained 4 scores only.

Table-2 : Showing the difference in teachers rating of different groups *viz.* (Boys and girls combined) successful and failure.

Group Variable	Successful		Failure				
	Mean	SD	Mean	SD	*t*	df	P
Teacher's rating.	4·14	0·67	2·87	0·60	14·11	398	·01

Table-2 shows the mean of teacher's rating score in 'successful' group (Mean= 4·14; SD=0·67) is higher than that (Mean=2·87, SD=0·60) of 'failure' group and the difference of mean is highly significant (t=14·11, df=398, P=·01). First hypotheses that 'successful' group would differ significantly from 'failure' is confirmed both on the basis of the frequency distribution and t-value which is highly significant.

Table-3 : Showing the difference in Teachers Rating among boys of different groups (All classes combined).

Group Variable	Successful		Failure				
	Mean	SD	Mean	SD	*t*	df	P
Teacher's rating.	4·09	0·65	2·95	0·62	12·61	198	·01

Table-3 shows that the mean of successful' boys (Mean=4·09, SD=0·65) is much higher than mean (Mean=2·95, SD=0·67) of 'failure' group and the difference is high significant (t=12·61, df=198, P=·01,

Table-4 : Showing the difference in Teachers rating among girls of different groups (All classes combined).

Group Variable	Successful		Failure				
	Mean	SD	Mean	SD	*t*	df	P
Teachers rating	4·19	0·67	2·79	0·55	15·98	198	·01

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Table-4 reveals that mean of 'successful' females (Mean=4·19, SD=0·67) is higher than 'failure' Mean 2·79, SD=0·55) and the difference is highly significant (t=15·98, df=198, P=·01). The above findings confirm the hypotheses No. 2 that male and female students would differ on teacher's rating. Girls of 'successful' group was rated higher than boys. Among 'failure' male and female there was nominal difference.

Table-5 : Showing Difference in Teachers rating among boys and girls of 'successful' group in different classes.

T. R. Class	Boys Mean	Boys SD	Girls Mean	Girls SD	t	df	P
VIII	3·93	0·70	4·24	0·50	2·07	64	·01
IX	4·41	0·55	4·14	0·72	1·73	66	0·05
X	3·90	0·57	3·87	0·65	0·19	64	NS

Table-5 shows the difference of teachers rating score among 'successful' boys and girls of class VIII, IX and X respectively. The mean of class VIII boys (Mean=3·93, SD=0·70) is lower than that (Mean=4·24, SD=0·50) of girls and this difference is significant (t=2 07. df=64, P>·01). The mean of class IX boys (Mean=4·41, SD=0·55) is slightly more than that (Mean=4·14, SD=0·72) of girls and this difference is also significant (t=1·73, df=66, P>·05). The mean of class X boys (Mean=3·90, SD=0·57) is almost same as the mean (Mean=3 87, SD=0·57) of girls and this difference is not significant (t=0·19, df=64, P=NS).

Table-6 : Showing the difference in Teachers rating among boys and girls of 'failure' group in different classes.

T. R. Class	Boys Mean	Boys SD	Girls Mean	Girls SD	t	df	P
VIII	3·15	0·56	2·75	0·56	2·90	64	·01
IX	2·82	0·57	2·85	0·55	0·22	66	NS
X	2·87	0·69	2·75	0·56	0·77	64	NS

Table 6 reveals that the mean of Class VIII boys among 'failure' group (Mean=3·15, SD=0·56) is higher than that (Mean=2·75, SD=0·56) of girls and the difference is significant (t—2·90, df—64, P=·01). The mean of Class IX boys (Mean=2·82, SD=0·57) is almost same as that (Mean=2·85, SD=0·56) of girls and therefore, the difference is not significant, (t—0·22, df—66, P=NS). The mean of class X boys (Mean=

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2·87, SD=0·69) is higher than that (Mean=2·75, SD=0·56) of girls and this difference is not significant (t=0·77, df=64, P=NS).

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On the basis of the above findings (table 5 and 6) hypotheses No. 2 is confirmed in case of successful boys and girls of class VIII and IX, and suggested the superiority of female students on teachers rating over boys But among 'failure' group of class VIII boys surpassed girls on teachers rating. Hypotheses No. 3 is partly confirmed because among successful group class wise and sex wise comparison of Class VIII and IX revealed significant difference while for class X difference was not significant whereas for 'failure' group the difference was significant at class VIII for class IX and X there was insignificant difference,

Thus, it is concluded that teachers rating for 'successful' group was higher as compared to failure group. Sex-wise analysis of data showed the superiority of girls over boys among both 'successful' and 'failure' groups (except class VIII) suggest that that 'halo effects counts a lot in case of girls' teacher-taught relation as compared to to boys. The difference in male and female teacher's rating may be due to the high emotional value of the females and balanced and liberal attitude of male teachers.

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A Critical Evaluation of Reliability of Jalota's Test of General Mental Ability

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Dr. Jalota's test of General Mental ability is widely used as a group and Individual test to measure the intelligence of 13 years to 16 years old students studying in VIII to XI grade. It is a quite popular test for guidance, diagnosis classification and selection (Singh 1963). Its reliability as per its manual has been reported to be +·938 (Jalota 1964).

In this study, the test under reference, was administered to a random sample of 300 students of 13-16 years of age belonging to VIII, IX, X & XI class. The sample was taken from Intermediate colleges of Agra, Bamroli Katara Kundol and Fatehabad. The Sexwise, Age-wise, culture-wise (Rural & Urban) and grade-wise split half reliability was calculated. Spearman prophecy Brown formulae was used for the purpose (Gupta 1966).

Table 1 : Shows the Sexwise reliability of the Test.

	Male N=100	Female N=100
Reliability	·95	·90
Level of significance	·01	·01
Fisher's Z function	1·83 (Z_1)	1·47 (Z_2)
$DZ=Z_1-Z_2$	·36	
$\sigma(Z_1-Z_2)$	·14	
CR L.S.	2·6	

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The significance of difference between the reliability co-efficients for boys and girls was calculated by converting the Co-efficient of correlation into Fisher's Z function and as a result the value of C. R. was found to be 2·57 (Fisher 1941) which is highly significant at ·05 level of significance. Hence it can be concluded that there is a significant difference between the split-Half reliability for boys and girls. The test is more reliable for boys then girls. Through it is highly reliable for both the sexes, the amount of reliability varies from one sex to other. Table No 2 shows the age-wise reliability of the Test.

Table 2 : Age wise split half reliability.

AGE	12 N=50	13 N=50	14 N=50	15 N=50	16 N=50	17 N=50
Reliability	·83	·88	·91	·94	·93	·90
Level of significance	·01	·01	·01	·01	·01	·01

The test is meant for 13 to 16 years age. The reliability co-efficient for 13, 14, 15 & 16 years old students are ·88, ·91, ·94 & ·93 respectively. It shows that reliability of the test increases from 13 to 16 years of age. The reliability for the age of 12 years and 17 years old was also found which is ·83 and ·90 respectively which shows that reliability of the test decreases for the age group of less than 13 and more than 16 years. However the test is fairly applicable for age group of 13 to 16 years. Table 3 shows the grade-wise reliability.

Table 3 : Grade-wise Split half reliability.

Grade	VII N=50	VIII N=50	IX N=50	X N=50	XI N=50	XII N=50
Reliability	·81	·86	·90	·92	·94	·95
Level of Significance	·01	·01	·01	·01	·01	·01

The test is meant for the VIII to XI grades. The reliability for VIII, IX, X & XI grades are ·86, ·90, ·92 and ·94 respectively which are highly reliable, the above table shows that reliability of the test increases from VIII to XI grade. The reliability for VIII grade is lowest which is ·86 and highest for XI grade which is ·94. However it shows that reliability of the test decreases for VII grade and increases for the grades beyond XI. Table No. 4 shows the culture wise reliability of the test.

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Table 4 : Culture-wise (Urban and Rural) reliability.

	Urban N=100	Rural N=100
Reliability	·92	·90
Level of Significance	·01	·01
Fisher's Z-function	1·59 (Z_1)	1·47 (Z_2)
$DZ=Z_1-Z_2$	·12	
$\sigma(Z_1-Z_2)$	·14	
CR	·83	
Level of Significance	Not Significant even at 0·1 level of significance	

The reliability of the test for Urban and Rural sample was found to be ·92 and ·90 respectively, which is highly significant. For understanding the significant of difference between the reliability co-efficient for urban and rural sample the correlation was converted into Fisher Z-functions and the obtained value was not found to be significant even at ·01 level of significance. It shows that the tests is reliable for both the cultures *i.e.* Urban and Rural. However the test is more reliable for urban culture in comparision with rural culture.

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Development of Observation Schedule for the Training of Feedback Donor-(OSTFD)

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"Feedback plays in important role in determining the Success of a teaching programme. For providing feedback effectively, training of the Feedbacker/Feedback donor is very essential. With the help of 'OSTFD' the feedback giving competence of the feedback donor can be assessed. In the present paper an attempt has been made to describe the various steps involved in the construction of the tool-'OSTFD'."

The success of a teaching programme depends to a large extent on the quality of feedback provided to the teacher about his teaching performance. Effective feedback to the teacher can be provided only when the observers or the supervisors are trained in observing the lesson taught by the teacher very minutely and also when they are trained for providing feedback. Hence observation plays an important role in research on feedback training.

Rationale

Since the process of giving feedback involves observational procedure, hence for constructing a tool for the training of feedback donor related literature namely "Mirrors for Behaviour" was reviewed. "Mirrors for behaviour' edited by Simon and Boyer (1967) is an anthology of classroom observation instruments. Some recent tools developed in India in the area of teacher training and student teaching were also reviewed—such as General Teaching Competence Scale (GTC) developed by Passi and Lalitha (1978) Teaching Assessment Battery (TAB) developed by Jangira *et al* (1979), Indore Teaching Assessment Scale-(ITAS) developed by Passi, Deshmukh and Sharma (1980) and Process-process Appraising Scale of Teacher Effectiveness (PASTE) developed by Bhalwankar and Joshi (1978). None of these tools has focused upon the Feedback Giving Competence. In the area of Feedback Giving Competence only one tool was available developed by Dubey (1983). But this tool was very lengthy and it contained some items which were overlapping. Hence it was thought to construct a new tool for the training of Feedback donor.

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Development of tool : In order to develop the tool for the training of Feedback donor it is necessary first to conceive the structure of feedback and feedback giving phenomenon. There are various definitions related to the concept of feedback. The term 'feedback' is borrowed from Electrical Engineering and it is widely used in Programmed Learning. Good (1973) in the dictionary of education has defined feedback as —" a process whereby the individual gains information concerning the correctness of his previous responses so that he can adjust his behaviour to compensate for errors." In the present context. Feedback has been defined as "the process of providing the information regarding the teaching performance of a teacher for improving upon his teaching behaviour in subsequent teaching sessions and or actual class performance." From these definitions one can draw inferences regarding the main functions of the feedbacker/ feedback donor. The feedback donor should :

(i) give suggestions to the teacher for maximizing his strong teaching behaviours ;

(ii) establish repport with the feedback receiver or the teacher ;

(iii) give suggestions to the teacher for minimizing his weak teaching behaviours ;

(iv) take care of the physical setting during the feedback process :

(v) try to develop confidence in the teacher.

Identification of relevant Components of the Feedback Giving Competence : The review of the related literature give rise to the following dimensions of the Feedback Giving Competence—(i) Observation of the lesson, (ii) Socio-emotional climate (iii) Quality of feedback (iv) Process of feedback and (v) Behaviour of the teacher. As already mentioned, in the area of Feedback giving Competence, only one tool was available. This particular tool was shown to experts and they were asked to examine the tool in the light of these dimensions. The experts gave the following suggestions—

(i) The tool is very lengthy,

(ii) Items conveying the same meaning could be deleted,

(iii) Some items were vague and hence they could be deleted.

Taking guidelines from this tool it was thought to construct a new tool.

Steps in the construction of tool : The various steps in the construction of tool are described as follows :

(i) *Item writing* : Keeping in view the concept and structure of feedback giving process, items were written. Hence a tool consisting of sixteen items was prepared. It had a five point rating scale of the Likert type, usable by self or other observers within toe classroom setting.

(ii) *Editing of items* : The editing process is important for the Likert scale as there is no objective check on the ambiguity of the items. The criteria suggested by

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Edwards (1957) were adhered to in the editing of items. The edited tool was then subjected to preliminary try out.

(iii) *Preliminary try-out* : The tool was administered on a group of twenty five student teachers undergoing micro teaching training. The student teachers were supposed to practise fifteen microlessons and for each of the five microteaching skills, three lessons were to be practised. When a student teacher was teaching a microlesson, he was being observed by the trained observer and the peer suparvisor on separate proformas meant for the observation of that particular microskill. After the completion of the lesson the peer supervisor gave feedback to the student teacher. This process of giving feedback was observed by the trained observer, who in turn gave 'Feedback on Feedback" to the peer supervisor/feedback donor. Next the feedbacker was given the obsavation schedule to rate himself as to how he provided the feedback. The trained observer also rated the feedback donor on separate proforma. This procedure was repeated thrice, at the beginning; during and at the end of the microteaching session.

(iv) *Scoring* : The responses of the student teachers were scored by alloting weightage to the items on a five point rating scale. The ratings of all the items were totalled.

(v) *Item analysis* : The scores of the tool, for the last lesson were taken. The tool consisted of sixteen items and the maximum score was 80. The proformas were arranged in an ascending order on the basis of total scores. Extreme upper 27% and extreme lower 27% groups were taken into consideration. Ths formula given by Edwards (1957) was used for finding out the value of '*t*' for each item. The items with significant '*t*' values at 0·05 level were retained and the items with non-significant '*t*' values were rejected. In this way the discriminatory power of each item was worked out. The number of items rejected and retained and their corresponding 't' values are given in Table-1.

Table : Item Analysis of the tool.

Item No.	Mean of Upper Group	Mean of Lower Group	Value of '*t*'	S/NS	Item Ret/ Rej.
1.	6·16	5·33	1·03	NS	Rej.
2.	5·83	4·50	2·55	S	Ret.
3.	5·50	3·83	6·18	S	Ret.
4.	5·33	2·83	3·67	S	Ret.

Conted...

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5.	6·00	3·83	5·41	S	Ret.
6.	5·16	3·30	3·00	S	Ret.
7.	5·33	3·33	4·24	S	Ret.
8.	5·66	4·00	5·03	S	Ret.
9.	4·83	3·16	2·98	S	Ret.
10.	5·16	2·83	5·35	S	Ret.
11.	5·33	3·66	2·56	S	Ret.
12.	5·83	3·83	3·52	S	Ret.
13.	5·33	3·30	4·25	S	Ret.
14.	5·16	3·33	3·00	S	Ret.
15.	5·33	4·33	1·34	NS	Rej.
16.	5·83	4·40	2·55	S	Ret.

Where Ret.—Retained

Rej.—Rejected

S—Significant

NS—Non-significant

From the table it is evident that two items were rejected and fourteen items were retained.

(vi) *Preparation of Final draft* : On the basis of item analysis, a tool consisting of fourteen items with five dimensions was formed. In this tool a five point response pattern was provided.

(vii) *Reliability* : For the purpose of establishing reliability to observers (one the trained observer and another the student supervisor trained by the expert observer) observed the fifteen lessons of the student teachers sitting simultaneously in the class-room. The student supervisor was trained by the first observer during the course of observation and subsequent feedback discussion sessions. The coefficient of inter-observer agreement was computed by calculating '*r*' coefficient of correlation given by Gareet (1971) in his book 'Statistics in Psychology and Education.' The coefficient of inter-observer agreement was found to be ·85.

(viii) *Validity* : The observation schedule for the training of feedback donor is is an instrument which has been developed for the first time. Therefore the question of concurrent validity does not arise. Face, logical and content validity of the instrument were established. The face validity of the tool was established by showing it to experts in the field of education. In the same manner for establishing logical validity the

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experts were requested to visualize the nature and function of feedback and stepwise components within the feedback process. The experts approved that the present tool 'OSTFD' having five dimensions covering fourteen items, does correspond with the essential components of the feedback process. There was a complete harmony between the visualized process of feedback and the instrument. The experts also opened that educational institutions do teach some of the given concepts existing in this instrument. Hence content validity of the tool exists. The future researchers should aim at establishing factorial validity of the tool.

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The Impact of Pre-School Education on Cognitive Abilities of Six Year Old Children From Upper Lower Social Class Groups

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A sample consisting of 100 *Ss from upper and lower social class with and without preschool education was administered the Draw-a-Man test Phatak,* 1966) *to study the devolopment of cognitive abilittes in children. The hypotheses tested were (i) that there exist social class differences in the development of cognitive abilities of children and (ii) that there exists a correlation between preschool education and cognitive competence children.*

Results showed significant social class differences in the cognitive abilities of children. When preschoal education was taken as a variables, marginally significant differences were observed in cognitive abilities of children coming from lower social class and no significant differences were observed in cognitive abilities of children coming from upper social class.

INTRODUCTION

The term cognition has been used to refer to the process of apprehending enviromental stimilation. It is a superordinate term subsuming the more familiar representational processes like imagery, perception, free association and reasoning. Cognitive ability, therefore, may be viewed as efficiency of individual's cognitive function (Kagan and Kogan, 1970)

Considerable number of investigations on the effects of deprivation, disadvantage and handicaps at the socio-economic cultural levels on the cognitive abilities of children (Miron and Kraemer, 1976), have accepted the monotonic assumption, that of a linear relationship characterising socio-economic status and psychological sociological-educational function of achievement, rather unquestioning. The lower the socio-economic level, the poorer the home, the greater the deprivation, disadvantage and handicap (Bloom, 1964). Studies done on I. Q.'s' (Peck, 1953) and other intelligence correlates (Eels, 1951 ; Weeks, 1973) show that children coming from upper social class group scores significantly higher on various tests.

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There is a considerable research evidence to show that preschool education has a positive effect on the child's cognitive development (Long, 1977 ; Roy and Tiwari, 1977 ; Darlington, 1980 ; Goodman and Andrews, 1981)

Objectives of the present Investigation : The focus of the present investigation was (i) to study the level of cognitive abilities of 6 years old children, (ii) to study the various factors involved in the complex variables of social and preschool education which could account for differences, if any, in the development of cognitive abilities.

METHODOLOGY

Design : The study was conducted in two phases. In the first phase children from government schools were administered the Kuppaswamy scale (1981). This delineated the upper class children from the lower class children. Children with preschool education and without preschool education were chosen within each social class.

The second phase of the study consisted of administering the Draw-a-Man test cPhatak, 1966) to test the level of cognitive abilities of children from different social (lasses with different educational experience *i. e.* preschool education.

Sample : Sample consisted of 100 Ss (94 boys and 26 girls) of six years of age in the first grade. 50 Ss were selected from the upper class and 50 from the lower class. Sampling procedure was purposive selection based on the various controls and the variables of the study.

The criteria for sample selection were the Ss age, social class and preschool education. The age of the Ss was 6 years within a margin of three months plus or minus the specific age.

Data Collection : The Draw-a-Man test (Phatak, 1956) was administered to groups of five children. The background information about the child as to his name of age, sex, date of birth, environmental level, name of school, grade and town was collected and written on the drawing sheet. This was done by asking the relevant details from each child. The sheets were distributed amongst the children and they were given precise instructions to draw a man in the blank space.

Scoring : The scoring was done with the help of the scoring sheet given in the manual. Scoring procedure consisted of detailed scoring of each body part based on the presence and the degree of development of a particular body part like the head, eyes. nose, arms, legs, trunk etc. Muscle control and motor co-ordination are important aspects of the development which affects the total representation in the drawing. Hence these aspects were also taken into consideration.

Results : Total raw scores and I. Qs of the children were calculated and analysed. Means and the standard deviations of the raw scores and I. Q. s were calculated (see able-1).

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Table-1 : Calculated means and standard deviations of raw scores and I. Q's

S. No.	Variable	Raw scores		I. Q's	
		Mean	S. D.	Mean	S. D.
1.	Upper class with preschool education	34·12	4·61	166·67	—
2.	Upper class without preschool education	36·64	6·32	164·00	9·04
3.	Lower class with preschool education	17·88	4·09	123·33	24·49
4.	Lower class without preschool education	14·72	4·45	107·33	18 30

1. Coefficient of variation was calculated to see the fluctuation and the variations of scores of the four groups. Itwas seen that there is maximum variation in the scores of children from lower class without preschool education and minimum in the scores of children belonging to the upper social class with preschool education (see Table-2).

Table-2 : Calculated value of CV

S. No.	Variable	CV
1.	Upper social class with-preschool education	13·51
2.	Upper social class without preschool education	18·79
3.	Lower social class with preschool education	22·87
4.	Lower social class without preschool education	30·23

2. 't' value of I. Q's and raw scores were also calculated to see the reliability of the difference between the means (see Table-3).

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Table-3 : Calculated values of standard error of difference between the means for children from upper and lower social classes and those with and without preschool education.

S. No.	Variable	SED	Calculated value of 't'	Level of significance
1.	Social class	·998	17 62	·01
2.	Upper class with and without preschool education	1·58	·30	N. S.
3.	Lower claas with and without preschool education.	1·22	2·59	·05

3. In order to see the relationship of social class and cognitive ability and preschool education and cognitive ability. Product moment coefficient of correlation was calculated for children from the two social classes under study and those with and without preschool education (see Table-4).

Table-4 : Calculated value of "r" of children from upper and lower social class with and without preschool education.

S. No.		Calculeted Value of "r"	Level of siginificance
1.	Social class	·81	·01
2.	Upper calss with and without preschool education	—·185	N. S.
3.	Lower class with and without preschool education.	0	—

The major findings of the study were :

1. There are significant differences between the cognitive abilities of upper and lower class children of six years of age.

2. There is a high degree of positive correlation between the cognitive ability scores and the social class of the Ss, with children from upper class scoring higher than the lower class sample.

3. Marginally significant differences exist between the cognitive abilities of lower class Ss with and without preschool education.

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Ss with and without preschool education.

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Discussion : The discussion of the results are presented in three sections :

1. Presence of significant social class difference in cognitive abilities of children :

The differences among the groups cannot be consistently explained according to one theoretical view point. It is contended that the superior educational environment and the greater opportunities for cultural advancement of higher class children over the lower class children accounts for significant differences between the two groups.

Lerner (1937) conceives of class differences as reflecting different kinds of experience and demands due to differences in child rearing practices. Working class parents are more authorotarian and give their children fewer opportunities to learn a more autonomous attitude. Another suggested route of transmission for social class differences is through traditional, culturaal and religious values which lead to different types of child rearing practices.

Middle class a working class parents share a common set of values, but not an identical set. There appears to a class relationship between the actual working class situation and the values of working class parents. In either situation the values that seem important but problematic are the ones most likely to be accorded high priority, e. g. working class emphasizing on qualities that assume respectability, while middle class on internalised standard of conduct (Muthayya, 1974). In other words, parent's values are related to their social positions: specially their class positions. Though parents of all calsses show warmth and love and share values, middle class parents are more likely to use verbal reasoning, thus giving weight to child's own reasoning, perception and also encourage habits of verbal self expression. The above findings lead one to view differences in values of middle and working class parents in terms of the differing circumstances in life (working class situation is one of less material and emotional security) and by implication their conception of the effects that these circumstances may have on their child's future lives.

There exist differences in disciplinary techniques, with lower class making use of physical punishment more often than middle class who rely on psychological punishment (Warty and Mehta, 1970). The education of the parents has a positive effect on the cognitive development of the children (Jones, 1968).

Since home plays a significant role in the early developmental years of child, it can be expected that home conditions will exercise considerable influence upon the child's background of experience and his consequent behaviour and attitudes. The activities, interests and financial status of parents and of other adults in the neighbourhood environment may provide for the child poor, relatively meagre or extremely rich series of experiences. The home provides the child with a variety of intellectual experiences which

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stimulate the growth of the child. The relation between social class and intelligence and parental occupation and intelligence has one common factor, that is. the richness, stimulation and variety of the child's home environment.

Thus the different issues which could have accounted for social class differences in cognitive abilities can be summarised as follows : the different social class experience and demands, nature of the authority, social class related values and attitudes which give rise to the different child rearing practices and disciplinary techniques, thus affecting the quality of the home environment conducive to cognitive learning in children.

II. Presence of observable differences in the cognitive abilities of children from lower social class due to preschool education.

By the time the socially disadvantaged child comes to the primery school at the age of five or six, his cognitive growth is already repressed. This home environment is devoid of any intellectually stimulating conditions. The uneducated parents can not possibly satisfy natural curiousties of the child about the environment. Whatever language he uses at home is quite different from the standard language used in primary schools. The textbooks used in the schools are written by writers belonging to the culturally advantaged class. The concepts and images symbolised in the standard use of words are, therefore, quite foreign to the socially disadvantaged child. Deficiency left unchecked at the earlier stage is likely to cause irreparable damage to intellectual as well as cognitive growth in the developing child.

Deutsch (1965), calls this the "cumulative deficit" phenomena, which becomes more marked through the higher classes. In order to prevent this process of deterioration there is a necessity of a preschool programme for there children. There is experimental evidence to show that developmental processes before the age of five or six are extremely important for a proper cognitive growth. Bloom (1964) states that it is in the interest of the school to halt the cumulative defieits of these children as early as possible in order to make later intstruction and learning increasingly effective. It would be most efficient and effective if the early learning in the home prepared these children for the elementary school. Where the home can not provide this preparation, it would be in the interest of the child and the school. if this could be done by preschool education. This fact is emphasised by Cohen (1969), when he made this generalization, "the earlier we apply compensatory, high intensity education, the better the results are likely to be. In elementary school early intervention in the kindergarten or the first grade and preferably in pre-kindergarten is the best attack on the retardation in the culturally deprived child. The intermediate grades are dangerously late and junior high school compensatory education yields meagre results."

Some of the components of the cognitive deficiencies due to impoverished home edvironment are enumerated as follows (DeCecco, 1968) : (i) the environment lacks various types of objects to enrich visual perception ; (ii) the non-verbal nature of environ-

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ment leads to under development of auditory skills ; (iii) as the adult are not in the habit of connecting the past and the present meaningfully and the children seem to have a poor memory ; (iv) adults are not capable of satisfying the curiosities of their children, so children do not depend on adults for information ; (v) language development is poor due to inadequate labelling of the environment at home and (vi) speech sequences are poor and defective. Thus the major deficiencies are in perpetual and verbal learning which have to be removed in preschool learning situation before the children enter the regular school with the help of various processes of reinforement, perceptual training, behaviour n odification and discriminatory form of recognition. A child's verbal skills can be considerably developed. This, in turn would stimulate his intellectual growth. In short, stimulus deprivation being one of the important causes of socio-cultural deprivation, and, as it is not possible to provide enrichment at home, all possible measures have to be taken to provide rich and complex stimulating environment in the preschool situation for these children long before any formal education is imparted in the existing primary schools.

The present study, therefore, supports the research findings (Ambron, 1970 ; Dakshayani *et. al*, 1970 ; Steeles, 1974) that a preschool programme has positive affects on the mental abilities of children, thus providing meaningful experiences to enhance learning of cognitive skills in children.

III. Absence of the impact of preschool education in children from the upper social strata of society :

The reasons for not having observed differences could be as follows :

(a) The home environment of the children from the upper class is enriching enough to develop their cognitive abilities. (b) Another reason of absence of differences may be due to the nature of the test used (Draw-a-Man test, Phatak, 1966), to test the level of cognitive abilities in children. This test taps on the general intellectual ability of a child. At the age of six, the cognitive tasks are those requiring verbal comprehension, verbal expression, concept formation, memory etc. May be if an intelligence test tapping on these aspects is administered, differences, if any, could be observed. (c) The nature of the present study limited the investigator from studying the content and quality of the preschool programme which the children had been exposed to. If an extensive study is done on the preschool programme and its effects, on the development of cognitive abilities, its impact, if any, would come to surface. In the absence of specific data one can only speculate on this issue. Finally, it must be noted that the upper class subjects without preschool education were able to compare favourably with their counterparts with preschool education. This should alert us to the possibility that, may be we tend to lay too much of emphasis on the significance of learning experience in institutions outside the home, whereby, reducing the significance of home as a basic environmental source of learning cognitive skills. Evidence indicates that this need not necessarily be the case.

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A Comparative Study of Effectiveness of Linear and Branching Formats of Instructional Method in Teaching Science at High School level

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The main objective of the present study was to compare the efficacy of two styles of programmed texts, i e. Linear and branching with reference to performance of high school students on criterion test in a segment of general science. A sample of 100 students of IXth class was selected randomly. 100 students were devided into two equal groups to be taught through linear and branching styles of programmed texts, separately. Criterion test was administered as pre-test and post-test before and after the administration of programmed texts. The post-test scores were analysed by using the technique of analysis of variance since the two groups did not differ significantly in their pre-test scores. The results revealed that the performance of the students who were taught through branching programme is higher than those who were taught through linear programme on the criterion test in a segment of science.

INTRODUCTION

Programmed learning has attracted a large number of people because of its effectiveness and varied uses in the field of education, efficiency in terms of time taken to learn a particular topic. Programmed learning with an inbuilt facility of question asking and answering seems to be more appropriate method of teaching science subjects. A number of researches heve already established the effectiveness of programmed material in teaching science subjects (Manwarning, 1972 ; Teacher et al ; 1973 and Pandya, 1974).

A few studies comparing the relative effectiveness of the two types of programme and report, branching Programme to be more effective than linear (Sodhi, 1977 ; Husain,

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1971; Sharma, 1984). However, Verma (1977) found linear programme to be more effective at knowledge level and branching to be more effective at comprehension level. Kulkarni and Yadav (1966) attempted to find out the effectiveness of linear, branching and simple programme and the results showed that the treatment effects did not differ significantly. Thus the present study aimed to compare the performance of high school students in a segment of science following linear and branching styles of programmed texts.

Objective : To compare the effectiveness of the linear and the branching programme formats with reference to performance of high school students on the criterion test in a segment of general science.

Hypothesis : The performance of the students having undertaken branching programme is significantly higher on the criterion test than those having undertaken linear programme in a segment of general science.

Tools Used : Following were the tools used for the collection of data :

Programmed Texts : Linear and branching programmed texts in a segment of science (structure of seed) developed by the investigator (Gautam, 1986) were used.

Criterion Test : A criterion test in a segment of science (Structure of seed) developed by Gautam (1986) was used to measure the achievement of the students.

Sample : A sample of 100 students studying in IXth class wai selected randomly for the conduct of this experimental study.

Procedure : Before exposing the subjects to the programmed material, the criterion test was administered as pre-test to assess subjects' initial knowledge, if any, in the content being taught on the basis of their performance. 100 students were divided into two equal groups to be taught by linear and branching programmed texts, separately. The subjects were asked to read the instructions given in the texts carefully before going through the programmed materials. Each subject was allowed to proceed at his own pace. When all the students had completed the programme the criterion test was administered to obtain their post-test i.e., final performance level and formed the raw scores for the further analysis of data.

ANALYSIS OF DATA AND CONCLUSION

The analysis of variance was used for interpreting the data obtained as a result of treatment to the experimental groups Analysis of pre-test scores showed that the two treatment groups did not differ significantly in initial learning. Henceforth, all analyses were done on the post-test scores. The summary of analysis of variance in the present study is as under :

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Table 1 : Summary of analysis of variance.

Source of Variation	Sum of Squares	*df*	Mean Square (Variance)	*F*
$SS_{between}$	1115·56	1	1115·56	6·20**
SS_{within}	17633·40	98	179·93	

** Significant at ·05 level.

The *F*-value came out to be significant ($F=6·20$; $p<·05$). The mean achievement score of the group following branching style, 54·82, is significantly higher than the mean score of the group taught through linear programme, 48·14 ($t=3·53$; $p<·01$). Thus the research hypothesis was accepted that the performance of the students having undertaken branching programme is significantly higher on the criterion test than those having undertaken linear programme in a segment of science. This result is in conformity with the studies given by Verma (1977), Sodhi (1977) and Sharma (1984) who reported branching style of programming to be more effective than the linear style.

Educational Implication : The foregoing conclusion that the branching style of programming is more effective than linear style has got implications for the educationists and school teachers. Since the classroom teaching needs active involvement of the learners, such an innovation providing new approach to both-teacher and taught, needs to be used, especially in science teaching at high school level. The currieulum in the school setting should bring about changes in the textbook preparation by including the principles of programming, especially writing of instructional objectives, adding frames in the text of each chapter and evaluation through objective testing to meet the requirements as per the objectives laid down in each chapter. This will make the reading material quite interesting for the learners leading to better retention and hence improved performance.

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Introduction of Rotation System of Principalship : an Attempt

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INTRODUCTION

The principal plays a very significant role in the advancement of the college. The post requires both academic and administrative qualities. It must goes to a person who has proved himself competent both academically and padagojically But the responsibility for principalship is entrusted to the seniormost person on permanent basis. The whole college revolves round one person. As long as this authority is combined with moral and social responsibilities, the results are good, but whese they lack the responsibilities the results are disastrous. In many cases, either the power and authority is misused or there is only routine exercise of authority, completely neglecting development aspects. This proves disastrous not only for the individual teachers but also for the future of the college as well.

In many cases, the system of permanent Principalship leads to many evils such as concentration of powers, arbitrariness, suppression of individuals, unfair practices and misuse of powers which shall have no place in an academic environment. The smooth workability of Rotation system would definitely bring positive outcome if, like western-nations, we also emancipate ourselves from our will to govern others. Actually the time is ripe to examine our age old values and replace word of 'Subordinate' with 'Colleague'.

Keeping this in mind, the investigator was enticed to conduct a study of rotation system in the colleges. Moreover, he wanted to know how many teachers were in favour of this system if so, among whom should be rotated ? What should the period of rotation ? What were the drawbacks of permanent headship (principalship) and if there were any substitute of Headship/Principalship.

Objectives :

1. To find out the opinion of the teachers including Principles about the introduction of rotation system in the college level.

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2. To collect the opinion of the teachers whether the rotation system be restricted to (a) senior most lectures in the college only or (b) All Heads of departments or (c) Heads of Departments and the Lecturers who have at least 10 years teaching experience.

3. To seek the opinion of the teachers about the duration of Rotation System.

4. To assess the various aspects of Permanent Headship/Principalship in the opinion of the teachers and the Principals.

5. To find out the opinion of the Principals about the permanent Headship/Principalship.

6. To seek the opinion of the teachers and the Principals on the substitute of Headship/Principalship.

Hypothesis

1. The college teachers have no positive view towards the introduction of rotation system of principal ship.

2. The principals have no positive opinion towards the introduction of rotation system of principalship.

3. The college teachers have no favour of permanent headship/principalship.

4. The principals have no favour of permanent headship/principalship.

5. There should be substitute for principalship in the opinion of the college teachers.

6. In the opinion of the principals, there should be no substitute for permanent headship/principalship.

Sample—The sample of the study consisted of 20 principals and 200 teachers selected randomly from 20 different colleges of Orissa State (One principal +10 teachers from each college).

Tools—The self-made questionnaire was used for collecting opinion regarding the introduction of rotation system of principalship and pros and cons of permanent headship/principalship.

Statistical Techniques : X^2-test of equality and percentage analysis were calculated to fulfil the need of the study.

Main Findings

1. 85% of teachers are in favour of the introduction of rotation system of principalship at college level. Half of existing principals favour this system.

2. 37.7% of teachers want rotation should be among the two seniormost lecturers only, 63.3% among all heads of a Department and 9% among Heads of Deptt. and Lecturers who have 10 years teaching experiences. More than half of the principals opine that principalship should be rotated only among two seniormost persons in the college.

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3. Regarding the period of rotation, the teachers (81.7%) including the principals (65%) opine that it should be for two years.

4. A large number of Headship/principalship follows more democratic principals and would function in a better way if introduce in the college levels.

5. More than 80% of teachers opine that Rotation system provides leadership opportunities to individual teachers, makes the staff council more effective. More than 65% of teachers say that it never tries to take revenge on a person of different opinion, never creates partiality, not gives shelter to bad elements, and not create indiscipline in the colleges More than 60% of principals opine the same.

6. Majority of teachers (82%) including principals think that the rotation system encourages the faculty members to work hard, improves the academic environment of the college.

7. More than 87% of teachers, as well as Principals opine that rotation system does not misutilize the funds allotted to the college.

8. A large number of teachers (90%) are against the permanent Headship/ Principalship which concentrates powers, arbitrariness. suppresses the individuals, leads to unfair practices, misuses powers and bothers for praise and blame of the college. But only 40% of Principals are agree on the above things.

9. 85% of teachers and 80% of Principals are not in favour of substitute of Principalship by an Administrative Officer (A. O.).

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Perceived Employment Prospects of Professional Graduates : A Comparative Study

Gobinda Ch. Pal*

The study was carried out to measure the perceptions of employment prospects. One hundred professional graduate consisted of 50 medical and 50 engineering student of final year graduation, with equal number of males and females was taken. In order to measure the perceptions of employment prospect a formulated questionnaire was tried out and administered indiviaually. Result showed that perception of each group was moderately high. Medical and engineering graduates did not differ significantly on their perceptions of employment prospect. No significant sex difference was also marked.

INTRODUCTION

In recent years, reviews on the psychological effects of unemployment described a number of adverse reactions that included apathy, stress, helplessness, depression, self-doubts, diminished self-esteem and fatalistic beliefs (Daniel, 1975; Lauterbach, 1977; Fineman; 1979; *O'* Brein et.al.; 1979; Stokes. 1981; Jahoda, 1982; Kaufman, 1982; Feather and Bond, 1983; Jackson, 1983; Winefield 1984; Warr & Jackson, 1985; *O'* Brein, 1985b; Payne & Jones, 1987; Rowley & Ullah, 1987). Unemployment was also correlated with various social pathologies like morbidity, mortality, crime, suicide, violence and vandalism (Kirpal & Bhan, 1972; Berner, 1976; Lescohie, 1977; Jones, 1979; Boor et.al., 1980; Oliver, 1981). .Regarding the causes of unemployment, explanations of unemployeds were more structural than individualistic (Gurhey, 1981 ; Furnhan, 1984 ; Gaskell & Smith, 1985 ; Lowe, 1988 and Hones, 1989).

However, all the socio-psychological studies of unemployment have examined its effect on unemployeds who were deliberately at the door-sheet of employment market. They have neglected the issue of perceptions of employment prospect. It was assumed that intensity of unemployment might have weaken one's ambition and hopelessness for the

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future. Therefore it was thought that this line of inquiry can be fruitfully integrated by taking into account students' perceptions of prospect within larger context of their labour market experiences prior to graduat on educational attainment which are key factors in shaping their life. This can help in understanding as how unemployment deadens one's mind, destroys capacity for continuous sustained endeavour, induces a living for idleness and self-indulgence, impairs technical skills, weakens nerve and will power, interferes with job search process, thus, creats work inhibition syndroms and causes other social problems.

The scope of this research is confined only to the medical and engineering graduates. While in general there is paucity of research studies focusing on the variations in the composition and experiences of the unemployed workers, school leavers, general graduates; the medical and engineering graduates have not received the attention they deserve. Again, these two groups who build the pillar of scientific age and upon whom goverment has confidence are always ce tre of focus. As such, this research is proposed to throw some lights on the effects of unemployment in general and on their perceptions of employment prospect, in particular. In addltion, differences between medical and engineering graduates on employment rate, reported by CSIR data, 1981 (Medical wage employed=53·67%, engineering wage employed=78·08%) initiated for a comparative study. Two main objectives were kept for the present study as follows –

Objectives :

1. To find out the difference between medical and engineering graduates on their perceptions of employment prospect.
2. To find out sex-difference on perceptions of employment prospect.

METHODS

Subject : A total of 100 subjects were selected from two different co-educational colleges affiliaied to one Parent University. It was consisted of 50 medical and 50 engineering graduates. Twenty five males and and 25 females were selected from each 50 medical and 50 engineering graduates. Thus, 50 males and 50 females were taken from both medical and engineering colleges. However, the representative samples were drawn on the basis of purposive sampling.

Instrument : In order to measure the perceptions of employment prospect, a questionnaire was formulated. Questionnaire was consisted of 5 items with different dimensions such as confidence, expectancy, probability, controllability and difficultness. These items were tried out and necessary modifications were made ; and finalised to use in the test situation. Items were to be rated on a 5 point Likert type scale, ranging from very higher degree to very lower degree. Thus, the total score would range between 5 to 25. Higher was the score, better the perception and *vice versa*.

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Procedure : The questionnaire was administered to one subject at a time. Respondent was helped individually whenever there was difficulty in understanding. No time limit was prescribed. Each questionnaire was checked at the time of collection. Anything incompleted, the respondent was requested to complete it. Hundred completely responded questionnaires were collected, sorted out and scored. Means, *SDS* and *t*-values were computed.

RESULTS

Table 1 : Significance of Mean Difference between Medical and Engineering Graduates on Employment prospect scores—

	Medical	Engineering
N	50	50
M	18·68	19·48
SD	2·82	2·67
	$t=1{\cdot}45 \therefore P>{\cdot}05$	

The result showed that over a sample of 50 medical and 50 engineering graduates the means of employment prospect score were 18·68 and 19·48 respectively. The mean difference of ·80 in favour of engineering graduates was not significant at ·05 level ($t=1{\cdot}45$). This indicated that medical and engineering graduates did not differ significantly in preception of employment prospects.

Table 2 : Significance of Mean difference between Male and Female on Employment prospect scores

	Male	Female
N	50	50
M	19·24	18·92
SD	2·92	2·63
	$t={\cdot}57, P>{\cdot}05$	

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The mean difference of ·32 in favour of males was not significant statistically (t=·57). Therefore, it was concluded that no sex difference was there on perceptions of employment prospect. In other words, both males and female were equally confident of getting job. A similar result was found out, when sex difference was made within medical as well as engineering graduates. No significant mean difference was marked between medical males and medical females on perceptions of employment prospect score (t=·50). Similarly, engineering males and engineering females did not differ significantly on their job expectancy. Thus, it was concluded that sex was not a determinant of perceptions of employment prospect.

DISCUSSION

Of course, no significant difference was marked between medical and engineering graduates on employment prospect scores, it was found that engineering graduates perceived slightly better than medical graduates. It may be due to the fact that medical graduates perhaps differentiating between self-employment and wage-employment. On the other hand, importance given to industrial and technological developments both in public and private sectors by government might have provided cues for engineering graduates to perceive in a better way. Any way, it was noted that both groups had a better perception (engineering=78% and medical=75%).

The insignificant difference indicated that both groups were equally affected by unemployment. The social climate marked by uncertainly and increased competition for jobs in each field of education might have led them to perceive their prospects in a similar way. It might be true that in both groups a person's expectation of getting a job would be affected by his/her experiences of job market and the extent to which the job search was successful or unsuccessful for their seniors. While in both courses there are over production of degree holders who are striving for limited posts and escalated of educational credentials, the job requirements have not kept pace with them. Both feel over qualified and underemployed. This perhaps led to similar perceptions of future employment. Moreover, to some extent both the medical and engineering graduates are homogeneous population in terms of professional status, age, academic degree and other social factors.

Meyer and Wise (1982) observed that the experiences of pregraduation employment should have a bearing not only on future occupational patterns but also in shaping perceptions of employment problem. Lowe (1988) also noted a near unanimity in the responses relating to employment opportunity by the school and university graduates. It may, thus be inferred that students' deep involvement in labour market and personal experiences in it tend to foster similar perceptions of employment prospects in medical as well as engineering graduates.

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Regarding the sex difference, it was expected that gender role socialization, coupled with early work experience would lead young men and women to develop divergent views about the possibility of employment. However, the absence of substantial gender effects on perceptions of employment prospect suggest that contextual factors related to socio-economic status, work and education overshadowed gender influences on their perceptions of employment prospect. No significant sex difference may be due to the fact that in the present social climate, females are fighting for equal social status, social identity, assertiveness and independence. They perceive themselves equally potential as males. This belief becomes incorporated into individual value system shaping preferences and behaviours. When employment has a meaning for them they feel it important and their perceptions are affected accordingly. Thus, the present finding of no gender difference on perceptions of employment prospect can be explained in terms of general social pressure, social consciousness and social supportiveness.

The present finding is consistent with the finding of Daniel (1975) who reported apparent similarity on job expectancy scores (Male 23% and Female 22%). Henwood (1983) reported that there were no sex-differences in the categories of experiences of unemployment. Honess (1989) reported that valley boys were more optimistic to find a job than valley girls but sex difference between town boys and town girls was not significant. In contrast, strong sex differences on measures of different unemployment variables and job expectancy have been reported by some researchers (Feather, 1983; Antil, 1985; Feather & O' Brein, 1986). However, since many of these researches were concerned with school leavers and other unemployed workers, the present finding may not be considered fully supportive or contrasting evidence. This, rather can help in understanding the unemployment problem from different prospectives.

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APRC : UNIQUE PUBLICATIONS

1. STATUS OF INDIAN RESEARCHES IN CREATIVITY

Edited By : DR. GOVIND TIWARI, D. Litt.

2. NEED PATTERN OF TRIBAL AND NON-TRIBAL

By : DR. S. C. SHARMA

Agra Psychological Research Cell, Agra

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Evaluation of Mathematics Text Books in the Primary Stage in West Bengal

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INTRODUCTION

Text-book is one of the important curricular materials which help in generating educative interactions in the class room between the teacher and the learner, and also between the learner and the co-learners as a result of which instructional objectives can be achieved. Admittedly in some instances, they are used as the only source of securing information for the students. In many situations, text-book is the course of study for a subject. Therefore, a text-book may be defined as a systematic organisation and presentation of selected and summarised instructional materials, based on the prescribed syllabus, keeping in view the needs and interests of the pupils to facilitate teaching and learning for the accomplishment of desired goals of the subject for a particular class (NCERT : Singh, P.). It is evident that text-book is instructional material and it only contains selected materials in condensed form and is organised in a systematic way for the attainment of instructional objectives of a subject for a particular class.

The essential function of text-book is to make the knowledge, which does exist available to learner in a selected and ordered way. In fact, text-books are prepared in the manner so that they may be used by the teacher to fit his own particular teaching situation. It helps the teacher to organise and develop major ideas, relationship, knowledge and skills in the students in a particular subject area. Text-book can help in cultivating desired attitudes and values in the learners minds. As a learning aid, text-book can be used before the lesson, during the lesson, after the lesson and for self-learning. A text-book can be helpful even to the inexperienced teacher as it provides a guide for him in his teaching. It helps to reinforce learning that originates in the class-room or laboratory, in fieldtrip or outside the school. Such reinforcements come from self-study and home work as well as independent reading. In view of its important function, text-books are and will remain the most commonly used teaching aids in the schools of the world. The importance though, of course, varies from country to country. Still, it is universally recognized as a basic teaching tool; special emphasis is being given increasingly to the text-book in those countries where additional reading materials are not widely

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available to school children. This is particularly true of the developing countries of the world. India, being a developing country is not an exception in this regard. The provisions for text-books of adequate quality and quantity have been a problem in India that has been a matter of concern to the educational authorities of the country for many years, particularly at the primary school stage.

Text-book preparation, production and distribution is a continuous process. Despite the bast text-books written by expert authors revision after continual intervals is essentials bscause there is always a scope for improvement (*NCERT*, 1970). Particularly in a subject like Mathematics where new knowledge is pouring in at a tremendous rate, more frequent revision is necessary to make the content up-to-date. But text-book evaluation is a neglected field of research in west Bengal. No research has been done in West Bengal to study the problems of preparation, production, distribution and use of text-book in general. In view of the fact that the latest reports in education emphasise the quality of text-book at school level there is an urgency for taking up an investigation like the present one. The finding on which may help the syllabus framers, teachers, educators, authors and text-book producing agency for improvoment of the text-books in Mathematics in particular and in other subject in general.

II. Statement of Problem : "Evaluation of Mathematics Text-book for Primary Education In West Bengal".

III. Objectives : 1. To assess the Mathematics Text-books on the basis of the criteria laid down by the National Council of Educational Research and Training (*NCERT*) with respect to the following aspects :

(a) Physical aspects such as format, paper, type size, printing, lay-out binding etc. (b) Selection of the content, (c) Language of the Content, (d) Illustrations, (e) Exercise.

2. To examine how far the objectives of teaching Mathematics reflected in the text-book.

3. To evaluate how far the content of the text-book is appropriate to achieve the set objectives of Mathematics.

4. To study the extent of fulfilment of academic and physical aspect of the text-books to meet the need of the learners.

Delimitations of the study :

The study was delimited to the present Mathematics text-books in West Bengal for classes I to V, published by Text-book Board, according to current syllabus.

IV. Methodology : Study of the text-books of Mathematics from classes I to V was done in accordance with the following procedure. The investigator prepared an analysis sheet consisting of 22 items according to the criteria suggested by lhe NCERT for analysing the text-books. Information about the above mentioned text-books of all classes

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were fed in to the analysis sheet by the investigator himself. The data from the analysis sheet were tabulated suitable for interpretation. Data were also obtained with respect to text-books of Mathematics in the form of perception of teachers. In all, such data on teacher's perception were collected from 50 primary school teachers.

Evaluation of Mathematics Text-Books :

Physical Aspect : All the four mathematics text-books on actual measurement were found to be $9'' \times 7''$ in size. The cover of all the mathematics text-books were found to be made of thin paper. In order to make the cover attractive to the children different colours prints had been used. The cover of the text-books of all the classes I to IV looked attractive due to the use of bright coloured pictures. However, 78 per cent teachers opined that the cover of the text-books were not attractive.

All the mathematics text-books were found stitched bound with frail thread, 93 per cent teachers felt that the sewing, binding and the paper used for cover were not good. It has been observed that the paper used in the text-books of mathematics in classes I to IV was white. 93 per cent teacher felt that the quality of paper used in the mathematics text-books was good. On examination of all the text-books in mathematics, it was found that the printing size of all the books were pica. It was observed that the printing of all the text-books were clear. The text-book of class I was clearer than the others. 62·22 percent teachers were of the view that the printing of all the text-books in mathematics were clear.

Content : *Its Presentation & Organisation* : It was found that the contents of the text-books in mathematics for all the four classes had been presented in accordance with the syllabuses. Also, 60 percent teachers opined that the content of mathematics text-books were in conformity with the syllabus and it were appropriate, 70 percent teachers considered that the content were related to the modern concept of mathematics. 90 percent teachers expressed the view that the content of the text-book were presented sequentially and continuously, ann 85 percent teachers agreed that there was coherence and continuity among different chapters. While only 65 percent teachers opined that the contents of the text clearly spelt out the substance of Mathematics, majority of the teachers (70 percent) agreed that the contents had been introduced with the idea of Local materials and resources which was in line with the recommendations of the NCERT. The principles and concepts of Mathematics as presented in the text-books were interesting to the children according to 45 percent teachers only.

Analysis revealed that contents in the text-books of Mathematics were very heavy in comparison to the mental ability of the children as so many materials were presented in each of the text-books, ; 65 percent teachers opined that the content of the text-books were beyond the understanding capacity of the children. Some of the teachers commented that some concepts were very hard for the children such as set, and certain geometrical ideas.

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Language : The Mathematics text-book in all the four classes had been written according to the approved alphabats with spoken language. But the vocabulary used in the text-books indicated that some of the vocabulary in the text-book of classes I and II were very new and were not easily understandable to the students of the respective classes. 67 percent teachers felt that the language used in the text-books were simple.

Illustrations : Examination of the Mathematics text-books of each of the four classes showed that only the text-books of class I provided illustrations with black and red colours. The remaining three books were only in black colour which was actually the printing colour of the whole book. Only the pictures presented in class I text-book were clear. 96 per cent teachers also opined that the illustrations in the Mathematics text-books were not adequate. 50 per cent teachers felt that the illustrative pictures were not clear and correct. Most of the teachers 80 per cent admitted that the placement, type, position, and size of the illustrations were appropriate. 76 per cent teachers opined that the illustrations of the text-books helped in making abstract thinking realistic.

Exercises : Each Mathematics text-book consisted of many chapters. In the beginning of each chapter in each text-book some concepts and examples have been given, thereafter the exercise had been presented. It appeared that the number of exercises and examples were not adequate. In fact, only 59 per cent teacher considered that the exercises are placed orderly; 60 per cent teachers opined that the exercises were adequate for measuring the childrens's achievement; 54 per cent teachers were of the view that exercises were based on real life situations. However, 51 per cent teachers held the view that the exercises provided in the Mathematics text-books were adequate for the average intelligence children to achieve mastery on the basis of the principles and exercises provided in the book.

Findings & Conclusions : (1) The prescribed text-books in Mathematics for different classes require considerable inprovement with respect to their physical quality such as printing, binding, paper quality, cover paper and so on. For instance, the quality of paper used for the cover as well as inside was extrimely poor in all the text-books. The books were not found in a duarable fashion considering that they were to be handled by young children. Clarity of printing was also lacking.

(2) The content in mathematics text-books were somewhat bookish and nonappealing to the students, as they lacked in term of life-related-ness and focast on problem solving skills. It was also expressed by a majority of teacher that the mathematics text-books fail to create interests to the students. Further, it was the opinion of most of the teacher that the illustrations used in various text-books were not only in-adequate but also lacked in their appeal to the children.

(3) The exercises presented in the text-books were mostly in accordance with the guidelines provided by the NCERT. However, most of the teachers appeared to be dissatisfied with the text-books in this regard. Teachers were of the view that the exercise

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given in the Mathematics text-books did not match with the age and ability of the children. The number exercises in the Mathematics text-books were not related to the children's needs.

Teachers perception with regard to mathematics :

I. Physical Aspect :

Specific Items	Percentages of Responses	
	Yes	No
Attractiveness of the cover	22	78
Durability of the binding	7	93
Quality of Paper used	93	7
Clarity in Printing.	62·22	37·78
II. Content :		
Conformity with the syllabus	60	40
Relation to modern concept of Mathematics	70	30
Sequence in presentation	90	10
Coherence with other books and chapters	85	15
Clarity of presentation	65	35
Content in relation to local material	70	30
Mental ability of the children	65	35
Interesting	45	55
Easy presentation	50	50
III. Language :		
Use of simple language	67	33

Contd.....

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IV. Illustration :		
Adequecy	4	96
Clarity of Correctness	50	50
Appropriateness in type, size, placement	80	20
Realistic use	76	24
V. Exercises :		
Adequecy	59	41
Appropriate placement	52	48
Measurement of childrens' Achievement	60	40
Based on real life situation	54	46
Correctness of the given answers	66	34
Related to needs of the children	16	84
Graded Organization	51	49

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STATUS OF INDIAN RESEARCHES IN CREATIVITY

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Effects of Socio-Economic Status and Cultural Setting on Anxiety

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INTRODUCTION

Goverment of India is trying toremove the illiteracy of the Country and hence enough money is being spent on education. Students admitted in Schools appear in first public examination at high school level. It has been seen that a very big percentage of students appearing at high school examination is detained as they fail in the examinations due to different reasons. These results sometimes compell the guardians to stop the education of their wards. This too causes the terrible results. On the other hand the money invested by the Government and parents is wasted as the child remains in the same class. This causes anxiety among the fuilures.

The researcher is, this is why, intended to conclude the reasons behind it how and why students are detained in the same class. This has been assumed that socio-economic status and cultural setting has direct-impact on the dependent variable-Anxiety. It has also been concluded by the recent research studies that scholastic achivement is the major factor in the development of anxiety.

The present study also aims to know the interaction of the two independent variables i.e. socio-economic status and cultural setting while they affect anxiety.

Anxiety is the root of all activities. In is a key to progress and a basis of growth. As– balanced diet is necessary for healthy development of body, anxiety is necessary for healthy development of personality. The growth an individual gets stunted without anxiety.

Anxiety is like a knife which can be used for good as well as bad purposes. Positive anxiety to some extent or degree is a stimulant for the growth and development of an individual.

One who suffers from anxiety can't use his powers properly. Anxiety is a problem in the process of any action being performed.

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Rawal Mridula (1986) found greater anxiety in rural group of students. It was also concluded that anxiety was significantly higher in the group of girls than the boys. It is related with the scholastic achievement.

Patel (Dr.) C. B. & Kapadia Mr. Shrish T. (1985) found in their research work that secondary school children of rural area experience less anxiety than students of urban area. It was also concluded that students who belong to high Socio-Economic Status group experience less anxiety than their counter parts of lower socio-economic status group.

The main objective of the study is to see the impact of Socio-Economic Status and Cultural Setting on anxiety of failures.

Null Hypothesis : (i) Socio-Economic Status does not affect anxiety of failures.

(ii) Cultural Setting does not affect anxiety of failures.

(iii) Socio-Economic Status and Cultural Setting do not interact while affecting anxiety of failures.

Sample : 180 failures of high school examinations of Kanpur district (City and Dehat) have been selected on the basis of multi-stage random sampling from two cultural setting i.e. rural and urban (90 each) having three levels of Socio-Economic Status i.e. high, middle and low. Each cell consists of 30 failures. ANOVA table of each cell has been prepared.

Tools used : Standard tools which have been used for collection of data are as follows—

(i) Anxiety Scale – By Dr. D. N. Srivastava and Dr. G. Tiwari, (ii) Socio-Economic Status Scale (Urban) and (iii) Socio-Economic Status Scale (Rural)

By Dr. S. K. Saxena & Prof. R. A. Singh

Anxiety scale of 100 items related to 111 constructs, *SES* Scale (Urban) of 18 items related to 13 construct & *SES* Scale (Rural) having 21 items related to 18 constructs have been used to get the views of 90 rural and 90 urban high school failure students and then the scoring has been done as suggested in the mannual.

DESIGN AND METHODOLOGY

In the present study 2×3 factorial design has been used in which separate effects of independent variables i. e. *SES* and *CS* have been seen on Anxiety and also the interactional effect of the above said two independent variables have also been seen. For summary of analysis of variance the ANOVA TABLE has been made which is as follows :

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Annova Table for Summary of Analysis of Variance of Anxiety Scores in 2×3 Factorial Experiment

Source	*SS*	*df*	*MSS*	*F*	Significance
Treatment	84·7235	5			
SES	94·2522	2	47·1261	0·6315	Not significant
CS	568·4626	1	568·4626	7·6174	.25/.10
SES×*CS*	184·0087	2	92·0044	1·2329	Not significant
Errors	1300·7674	174	74·7171		
Total	13847·4909	179			

DISCUSSION AND CONCLUSIONS

(1) Null hypothesis no. 1 pertaining to the effect of Socio-Economic Status is retained as its '*F*' ratio value 0·6315 is not significant even at ·10 level of significance. This shows that socio-economic status does not affect anxiety of failures.

(2) Null hypothesis no. 2 pertaining to the effect of Cultural Setting is rejected as its '*F*' values (7·6174) is significant at ·10 level of significance. This shows that Cultural Setting affects anxiety of failures. It is essential to note here that students who failed and belong to urban area have more anxiety than those who belong to rural area.

(3) Null hypothesis no. 3 pertaining to the effect of interactions of *SES* and *CS* is retained as its '*F*' value (1·2329) is not significant even at ·10 level of significance. This shows that *SES* and *CS* do not interact while affecting anxiety of failures.

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A Study of Conflict Resolution Among Pre Adolescents, Adolescents, and Adults

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The Problem : Adolescents take more time to resolve conflicts than pre adolescents and adults.

Explanation of Problem (*Why taken*) : A little work has been done to directly study the correlation between personality variables and relative case in the resolution of different kinds of conflicts. To fill this gape this study aims to find the influence of certain personality traits to the relative case of the resolving different kinds of conflicts. The personality traits to be studied and hypothesized to be correlated with the conflict resolution in this study are :

(i) Manifest Anxiety level

(ii) Extroversion and Introversion

(iii) Emotional Stability.

The types of conflicts to be studied are Approach-Approach, Avoidance-Avoidance and Approach-Avoidance.

Since the above mentioned personality traits are known to be correlated with age and sex it is proposed to devide the subjects age-wise and sex-wise ;—

Pre adolescent		Male
		Female
Adolescent		Male
		Female
Adults		Male
		Female

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The personality variables to be correlated are manifest Anxiety level Introversion-Extroversion and Emotion stability, age and sex.

Tools Used : Independent Variable—

(1) Types of Conflicts, (2) Age of subjects, (3) Sex of subjects, (4) Manifest anxiety level of subjects, (5) Subjects score on extroversion-Introversion scale, (6) Subjects score on Emotional stability scale.

Dependent Variable : Time taken in resolution of the conflict.

Sample : The sample of subjects was choosen in a random manner from schools and colleges in Hardwar as follow :

	Pre-adolescent		Adolescent		Adult	
Age Group	10 to 12		16—18		21 to 23	
Class	VI to VII		B.A./B.Sc./B.Com,		Post graduate & Professional Students.	
No. of Subjects	M	F	M	F	M	F
	40	20	40	20	40	20
Total	60		60		60	

The Raw data and the schedule of analysis :

1. Pre-adolescent	Male Female	Personality and Characteristics	(a) Time taken to resolve each type of conflict.
2. Adolescent	Male Female	—do—	(b) No. of conflicts each type of judged easier.
3. Adult	Male Female	—do—	(c) No. of conflicts each type of judged easier.

DATA & THEIR STATISTICAL TREATMENT

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DATA & THEIR STATISTICAL TREATMENT

Showing the time in Seconds taken in Resolving Various Types of Conflict Situations

GPs of Subjects	Types of Conflicts			Total	Meantime in second			Total
	APP–APP	AVO–AVO	APP–AVOI		APP–APP	AVO–AVO	APP–AVO	Irrespective of type of conflict
Adult Males No. 40	188·6	200·9	125·9	515·4	188·6÷40 =4·72	200·9÷40 =5·02	125·9÷40 =3·15	515·4÷120 =4·30
Adult Female N=20	143·5	137.2	70·9	351·6	143·5÷20 =7·18	137·2÷20 =6·86	70·9÷20 =3·55	351·6÷20 =5·86
Total N=60	322·1	338·1	196·8	867·0	322·1÷60 =5·54	338·1÷60 =5·64	196·8÷60 =3·28	867·6÷180 =4·82
Adolescents Male N=40	196·7	225·0	123·6	545·3	196·7÷40 =4·92	225·0÷40 =5·63	123·6÷40 =3·09	545·3÷120 =4·54
Adolescents Female N=20	160·5	118·6	70·2	349·3	160·5÷20 =8·03	118·6÷20 =5·93	70·2÷20 =3·51	349·3÷60 =5·82
Total N=60	357·2	343·6	193·8	894·6	357·2÷60 =5·95	343·6÷60 =3·23	193·8÷60 =5·72	894·6÷180 =4·97
Pre-adolescents Male N=40	147·4	180·1	118·4	445·9	147·4÷40 =3·69	180·1÷40 =4·50	118·4÷40 =2·96	445·9÷120 =3·72
Pre-adolescents Female N=20	72·8	59·7	54·7	187·2	72·8÷20 =3·64	59·7÷20 =2·99	54·7÷20 =2·74	187·2÷60 =3·12
Total N=60	220·2	239·8	173·1	633·1	220·2÷60 =3·67	239·8÷60 =3·99	173·1÷60 =2·89	633·1÷180 =3·52
Grand Total Irrespective of GPs *N*=180	909·5	921·5	563·7	2394·7	909·5÷180 =5·05	921·5÷180 =5·12	563·7÷180 =3·13	2394÷540 =4·43

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For Statistical analysis of the data obtained Non-parametric tests. viz. "Friedmen, Two-way Analysis of Variance". Kruskal-Wallia one-way Analysis of variance by Ranks. "Wilcoxon Mached Pairs Sign Rank Test", and The Mean Whitney U Test.

METHODOLOGY AND RESEARCH DESIGN

For the measurement of Personality traits standard tests were used as follow :

1. *Manifest Anxiety Level*—For Measuring this trait "Sinhas" comprehensive Anxiety Test (SCAT) by Dr. A.K.P. Sinha and Dr. L.N.K. Sinhas was used.

2. *Extroversion-Introversion*—For measuring this personality test, the Indian adoptation of Nayman-Kohils test Diagnostie Test by Dr. Jai Prakash was used.

3. *Emotional Stability*—For measuring this personality test Emotional Maturity Scale by Dr. Yashbir Singh and Mahesh Bhargva was used.

Experimental Creation of Different Kinds of Conflict Situations

The following personality characteristics were finally selected for pairing with one another and asking the subjects to choose one of them.

(1) Genius	(2) Humble
(3) Discipline	(4) Fashion
(5) Couragious	(6) Healthy
(7) Rich	(8) Popular

The personality characteristics selected for creating conffict situations had following qualities :

(a) They had personal appeal for the subject.
(b) They were almost equally attractives.
(c) They were related to normal healthy person and his aspirations.

In selecting these personality characteristics the number of procedure adopted was as follow :—

A large number of pre-adolescent, adolescent and adult students belonging the age groups of 10 years to 12 years and reading class VI to VIII, to age group of 16 years to 18 years and reading in first degree classes and of 21 years to 23 years reading in Post Graduate or Professional Classes were given a semi projective test.

Data and their Statistical Treatment (Testing Hypothesis)

Refering to Table we find that Adolescents ($N=60$) take on the average, 4·97 seconds in resolving conflicts. The Adulis ($N=60$) take 4·82 seconds and the Pre-adolescents ($N=60$) take 3·52 seconds. Thus on the whole the adolescents take more time and the pre-adolescent take least time in resolving conflicts. (irrespective of type of conflict")

To determine whether this difference due to age is significant or not, Kruskal-Walias' one-way Analysis of variance by Rank was used.

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Discussion : This study was concerned with the following question :

Whether age of a person determines the ease with which he is able to resolve conflicts ? The three age groups studied.

The mean conflict resolution time of the adolescents was found to be 4-97 seconds, for adults 4·82 seconds and pre-adoloscents. 3·52 seconds. Thus the adolescents were found to take greatest time in resolving conflicts as compared to adults and pre-adolescents. This observation suggest that age is an important factor in the ease with which conflicts are resolved.

Conclusion : Adolescents take significantly more time to resolve conflicts (irrespective of their types) than adults and pre-adolescents.

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A Study of needs in Relation to Prolonged Deprivation

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INTRODUCTION

The word 'deprivation' has been defined by many Psychologists in many ways. According to Hunt (1968) "... deprivation may be seen as a failure to provide an opportunity for infants and young children to have the experience required for adequate development." Mishra and Tripathi (1977) prefer to call it. 'Prolonged deprivation' because in their Opinion "... accumulation of experiential variety and extent is an out come of relatively longer periods in a natural setting." The word refers to a number of environmental and organismic variables constituting the basic sources of experiences to the living organism. After the publication of 'The Organisation of development of psychological function attracted the attention of Psychologists, Since then numerious studies have been done in many countries to see the effects of varying amounts and types of deprivation on psychological processes of the individual.

In the present study an attempt has been made to see the effects of deprivation on needs. The following hypothesis was formulated to be tested empirically :

That there would be significant difference between the high and low deprived subjects in respect of Achievement, Exhibition, Affiiliation, Dominance and Aggression needs.

METHOD

Sample : The sample comprised 267 male Hindu students reading in B. A. Class.

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Tests used : (i) Prolonged Deprivation Scale (Misra and Tripathi, 1977) was used to indentify high and low deprived subjects.

(ii) To measure Achivement, Exhibition, Affiliation, Dominance and Aggression needs Tripathi's personal preference Schedule (Tripathi, 1973) was used.

Procedure : The tests were administered individually at the residences of the Students in a relaxed condition. They were given sufficient time to complete the tests but intermittently time taken by them was announced to give indirect reinforcement for early completion of the tests.

RESULTS

1. High deprived group scored lower ($M=14{\cdot}59$) on Achievement need than the low deprived group ($M=14{\cdot}98$) The difference between the two means is not significant ($t=0{\cdot}55$, $df=151$).

2. High deprived group scored higher ($M=14{\cdot}23$) on Exhibition need than the lower deprived group ($M=14{\cdot}04$). But the difference between the two means is not significant ($t=0{\cdot}28$, $df=151$).

3. High deprived group scored lower ($M=12{\cdot}40$) on Affiliation need than the low deprived group ($M=13{\cdot}65$). The difference between the two means is not significant ($t=1{\cdot}56$, $df=151$).

4. High deprived group scored higher ($M=13{\cdot}94$) on Dominance need than the low deprived group ($M=13{\cdot}89$). But the difference between the two means is not significant ($t=0{\cdot}07$, $df=151$).

5. High deprived group scored higher ($M=12{\cdot}64$) on Aggression need than the low deprived group ($M=12{\cdot}17$). But the difference between the two means is not significant ($t=0{\cdot}61$, $df=151$).

DISCUSSION AND CONCLUSION

1. People having Achievement need try to do their best, want to be successful and accomplish tasks requiring skill and effort. A higher mean value shows that *LD* group has enough of these qualities in comparision with *HD* group. But Statistically two groups do not differ significantly, which should have been Although, we did not find a significant difference between *HD* and *LD* groups with regard to achievement need, a higher means score of *LD* group suggests that with the increase in deprivation level there is decrease in achievement need. So to some extent, our findings are akin to that of Rosen (1962), Srivastava and Tiwari (1967) and Morsback (1969) who found that subjects coming from

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lower stratum of society show low achievement need. This discrepancy has been explained on the basis of back ground factors i.e. orderly home environment (De Board, 1969), timing of Master demands (winter bottom, 1958); McClelland, 1951) and reward training (Bartlett and Smith, 1968).

2. People possessing exhibition need talk about personal adventures, experiences and achievement. They want to be the centre of attention. Here, we find that *HD* group has higher mean score than the *LD* group. But the difference is not at all significant. So we can say that deprivation has no effect on the growth and development of this need.

3. People having affiliation need want to be loyal to friends, to do things for friends and to form strong attachements. A higher mean score indicates that LD group has enough of these qualities in comparison with HD group. But the mean difference is not significant. Affiliation need arises from a need for security and concern for social acceptance. As Atkinson, Heynes and Veroff (1954) have stated affiliation is reflected through concern over establishing. maintaining or restoring a positive affective relationship with another person. By following the lead provided by other studies and the behavioural characteristics of the affiliation motive, it is reasonable to assume that increase in depriva-tion level should give rise to stronger affiliation tendencies. Our result is also supported by findings of Mishra and Tripathi (1980).

4. People with this personality trait want to be a leader in groups to which they belong, to persuade and influence others to do what they want. Taking into consideration the mean score of the respective groups we see that HD group has an edge over LD group. But the mean difference is not at all significant. It means that deprivation does not influence the growth and development of this personality trait.

5. People with this personality trait want to get revenge for insults, become angry and blame others when things go wrong. Here, we see that *HD* group has a higher mean score than the *LD* group. But the difference between two means is not significant. So we can say that aggression has nothing to do with deprivation.

Further studies are needed to ascertain the relationship between deprivation and all the above mentioned needs.

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A Cross Cultural Study of Aesthetic Values of Adolescents

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In the present study the impact of age, sex and cultural differences on political value were investigated. A 3×2×2 factorial design was followed (three adolescent levels : pre-adolescence, adolescence and post-adolescence, two sex groups : male and female and two cultures : India and Bangladesh were included). The sample consisted of 600 adolescents. Aesthetic value of these adolescents were measured by employing an adapted version of Single's Brief Scale of Values (1977). Hindi version of the scale was administered for Indian samples and Bengali version for Bangladeshi respondents. Sex and cultural differences have been found to have profound effects on aesthetic value.

INTRODUCTION

To value primarily means to prize, to esteem, but secondarily it means to appraise, to estimate or to evaluate. According to Hall and Lindzey (1966) value is a very important factor in the motivation of a person's behaviour. It is a measure of the intensity of a particular idea on feeling and is tantamount to the amount of psychic energy invested in an element of the personality. The individual is motivated by a system of "values" which are shaped largely through his experiences with his socio-cultural environments. Values are not just preferences, but preferences which are felt and/or considered to be justified morally or by reasoning, or by aesthetic judgements, usually by two or all three of these (Kluckhon and Strodbeck, 1952). Values are socially approved or disapproved desires or goals, conceptions or standards by which things or behaviour are composed and approved on disapproved (Tiwari and Gupta 1985) which express the 'good' the 'bad' the shoulds and the oughts of human behaviour on an approval-disapproval continum (Kerlinger, 1967).

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The worth the individual attaches to a particular object, phenomenon or behaviour is valuing. This abstract concept of worth is in part a result of the individual's own valuing or evaluation. This is also a social product that has been gradually internalized and accepted by the individual as his own criteria of worth.

Value-preferences express a level of internalization between the more acceptance of a value and commitment or conviction in the usual cannotation of the deep involvement in an area.

Value systems are characteristic features of all cultures and sub-cultures. Rules and regulations determine the activities of man in the society and as such these values are inculcated in them at birth to continue during the life span. Values are described by Spranger (1928) as the basic interests or motives in the personality of an individual. According to him, the mental character of man is principally determined through the value organs by means of which he lives and shapes his own life. Spranger classified values into six forms viz, the aesthetic, the economic, the political, the social, the theoretical and the social Spranger defined the aesthetic man as one who see his highest value in form and harmony. Each single experience is judged from the standpoint of grace, each single expression is enjoyed for its own sake. He need not be a creative artist. He is aesthetic but finds chief interest in the artistic episodes of life.

The primary source of information concerning meaning and values is the social environment of the adolescents. Values and meanings are taken in from significant persons such as parents, teachers and peer-group leaders. As he steps into adolescence, he faces various changes in his environment and has to face a turbulent phase. This turmoil is aggravated by his struggle with his own values, his parent's and his society's. The upsurge of his drives at this stage is the key cause of this struggle because these put his previously developed values to a severe test. The values held during childhood cannot be termed as personal values due to their passive receptions while values internalized by the adolescent and adult are personal values because of their active reception. A number of cross-cultural studies have established that every culture has a typical characreristic and distinctive concept of personality. The fundamental values of a culture to which a child belongs, leads a pattern to his basic personality, a pattern that gets injected on the individual self in interaction with the primary and secondary groups of that culture. In the present study an attempt has been made to study the cross cultural variations in the adolescent's aesthetic value system.

METHOD

Sample : The sample of this study consisted of 600 adolescents. The chronological age of the respondents ranged from 13 to 19 years. They consisted of pre-adolescents (13 to 14 years), adolescents (15 to 16 years) and late adolescents (17 to 19 years) Their educational level was between Class VII and Class XII and they were selected from the middle class socio economic group. Both male and female were included in the sample.

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Instrument : An adapted version of Singh's Brief Scale of Values (1977) was administered to determine the political value. This scale of values includes sixteen paired comparison type items, which can be well understood even by illiterates. These items consists of short statements which evoke responses regarding six values i.e. political, religious, economic, aesthetic, theoretical and social, as described by Spranger. In all 15 pairs of six values are possible. The sixteenth item is meant for ranking the most preferred and the least preferred values among all the six values.

Respondents are required to give a (/) mark on the value preferred. For each preference among pairs, one score is provided. Thus, a maximum of five score can be obtained on a value and a minimum of Zero. To this score a weightage of +2 and −2 is added for the most and least preference shown on item 16. Therefore, now after adding the weightage, a maximum of 7 score and a minimum of − 2 score can be obtained on each value. Since Singh's Brief Scale of Values is in Hindi, the test was standardized in Bengali language. It was at first translated into English from Hindi by five experts who knew both the languages very well and then both versions were administered to 100 adolescents one after the other. The reliability coefficient of the English version was calculated by tne split-half method for value and economic found to be 81. The English version was then translated into Bengali by five experts and a common script was prepared which was again rated on a 5-point scale on accuracy of translation, understandability and semantic equivalence. The stanine tables were then prepared for scores of each item of the test and those items with low scores were again translated by another expert's rating. The final form of the test was administered to 100 adolescents between 13 and 19 years having educational level of Class VII to Class XII coming from middle class as a pilot study.

The reliability of the Hindi version of Brief Scale of Values was obtained by test-retest method and the value of r is significant at ·01 level. The validation of B. S. V. was determined against the Ojha's Hindi version of Allport Vernon's Study of values. The index for aesthetic value was found to be ·33. The Hindi version was used in India and the Bengali version in Bangladesh. A positive corelation was found between the two versions of the scale ($r = ·95$, $P < ·005$).

Design : A $3 \times 2 \times 2$ factorial design was employed. Three chronological age levels-preadolescence, adolescence and late adolescence, two sex groups-male and female and two cultures-Bangladeshi and Indian were studied.

Procedure : The scale was administered in class room situation to willing adolescents in groups. The instructions given in the manual were followed. There was no time limit for responding.

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RESULTS

The mean scores of aesthetic value are presented in Table 1.

Table 1 : Mean scores of aesthetic value according to chronological age, sex and culture.

Age	Culture			
	Indian		Bangladeshi	
	Male	Female	Male	Female
Pre-adolescence	1·56	1·62	2·48	4·32
Adolescence	1·64	3·00	2·52	3·08
Late adolescence	2·42	3·28	1·64	3·72

In order to examine the effects of chronological age, sex and culture on aesthetic value, scores were analyzed by $3 \times 2 \times 2$ analysis of variance and are presented in Tabe-2.

Table II : Summary of $3 \times 2 \times 2$ analysis of variance of scores on aesthetic value as a function of chronological age, sex and culture.

Source of Variance	Sum of Square	*df*	M. Sq.	*F* Value	*P*
Treatment	450·18	11			
Chronological Age (A)	7·97	2	3·98	0·65	N. S.
Sex (B)	190·41	1	190·41	30·96	·01
Cultural Differences (C)	74·91	1	74·91	12·18	·01
$A \times B$	8·82	2	4·41	0·72	*NS*
$A \times C$	101·84	2	50·92	8·28	·01
$B \times C$	20·14	1	20·14	3·27	·05
$A \times B \times C$	46·09	2	23·05	3·75	·05
Error	3618·00	588	6·15		
Total	4068·18	599			

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The above ANOVA table reveals that cross cultural differences between Indian and Bangladeshi respondents with regard to aesthetic value exists ($F=12{\cdot}18$; $df=1$, $P<01$). The cellwise mean scores show that Bangladeshis have more aesthetic value ($X=2{\cdot}96$) and Indians ($X=1{\cdot}99$). Sex has been found to have a significant effect on aesthetic value. Females have higher aesthetic value ($X=3{\cdot}17$) than males ($X=2{\cdot}04$).

Further analysis shows that the first order interaction between chronological age and cultural differences was significant ($F=8{\cdot}28$; $df=2$; $p<{\cdot}01$). Indian pre-adolescents have lower scores ($X=1{\cdot}59$) than Indian adolescents ($X=2{\cdot}32$). Bangladeshi pre-adolescents have higher scores ($X=3{\cdot}40$) than Bangladeshi adolescents ($X=2{\cdot}80$). Among pre-adolescents, Bangladeshis have higher scores ($X=3{\cdot}40$) than Indians ($X=1{\cdot}59$). Among adolescents Bangladeshis again have higher scores ($X=2{\cdot}80$) than Indians ($X=2{\cdot}32$). Late adolescents Indians scored higher ($X=2{\cdot}85$) than Bangladeshis ($X=2{\cdot}68$).

First order interaction between sex and cultural differences was significant ($F=3{\cdot}27$; $df=1$; $P<{\cdot}05$). Indian females have higher scores ($X=2{\cdot}63$) than males ($X=1{\cdot}87$). Bangladeshi females have higher scores ($X=3{\cdot}70$) than males. Bangladeshi males and females both have higher scores than their Indian counter parts.

The trivariate interaction between chronological age, sex and cultural differences is significant at ·05 level indicating these variables simultaneously influence aesthetic value. The cellwise statistics reveals that the maximum magnitudes of aesthetic value on the basis of this study is related to the Bangladeshi preadolescent femals. Within India the maximum score is related to late adolescents females.

DISCUSSION

The scientific study of values has been taken up very recently, perhaps due to the complexity of the term itself or it being somewnat 'mentalistic' in nature. Every individual is motivated by a system of values shaped largely through his experiences with his social cultural environments. Valuing is concerned with the worth a subject attaches to a particular object, phenomenon or behaviour. Value orientations are regarded as the surface expressions of deep rooted personality characteristics (Khan, 1981).

In the present study it is interesting to note that while both sex and cultural differences have been found to make a significant difference on the aestheic value, the impact of the three levels of adolescence is not significant.

Bangladeshi adolescents in comparison to their Indian counter parts are characterized more by the appreciation of beauty, form, propotion and harmony, love for fine arts, drawing, painting, music, sculpture, axchitecture, love for literature, decoration of the home and the surroundings, neatness and system in the arrangement of things. This is

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probably due to the fact that Bangladeshi culture is less competitive that Indian culture. Such a cross cultural difference is abvious because every culture has a typical characteristic and distinctive concept of personality. Culture directs and gratifies individual needs very differently in different societies. Possibly this is because each culture has its own values and approved way of learning that affects thoughts, feelings, emotions, actions and endeavours of its people. The fundamental values of a culture to which a child belongs iend a pattern to his basic personality, a pattern that gets injected in the individual self in interaction with the primary and secondary groups of that culture.

Females in both cultures have been found to have higher scores on aesthetic value. Males are more involved in the bread winning persuite of life and it is left to the females to go for the finer aspects of living and appreciating beauty, form and harmony.

The different levels of adolescence do not have any significant impact on aesthetic values. However in another study the present author found that political value of the adolescent was influenced by different levels of adolescence (Karim, 1990). Any definite explanation for this trend is difficult to surmise in case of aesthetic value.

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A Study on the Extent of Vocabulary Proficiency in Bengali

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The present study is an attempt to find the vocabulary proficiency in Bengali of the students of secondary level on the criteria of two strata, sex and residence. The sample consists of 520 *students* (260 *boys and* 260 *girls*/ 260 *urban and* 260 *rural*) *studying in class X under the W. B. B. S. E. The study reveals that there is no significant difference in vocabulary proficiency due to sex variable* ($P > \cdot 05$). *But, the urban students show better proficiency in vocabulary than the rural students* ($P < \cdot 01$) *and also a significant interaction effect is found between the variables sex and residence* ($P < \cdot 01$) *on vocabulary proficiency in Bengali.*

INTRODUCTION

The best known linguistic theories of the first half of the 20th century consider the language not as a substance but as a form. Language is not merely the same as thoughts and things about which we speak, nor it is the sounds and tongue movements we use to speak about them. According to Feitelson (1973), linguistics are, (i) a labelling or classification of those content form of thoughts and things ; (ii) an abstract grouping or image of the sounds and expression form of language ; or (iii) both the content and expression form of formalization-what we talk about and how we talk about.

In very general sense, one might say that the skills of reading are essentially the same all over the world, irrespective of the language which is read. According to the statement of Keaney (1950), the word recognition is thought of to be the basis of all progress in reading. Understanding of meaningful word-meaning is the basic to reading with comprehension in a teaching-learning process.

In common usage the person's vocabulary is considered to be the range of words he/she uses in ordinary speech or writing. There are four distinct aspects of vocabulary

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knowledge and development (Feitelson, 1973). Those are (i) Oral (speaking), (ii) Writing, (iii) Listening and (iv) Reading—each with its own range and uses.

The vocabulary development is usually thought of as the process of increasing one's store of words and its meaning. Actually, the vocabulary development consists of a great deal more and must include the word power which is the power to deal effectively with new meanings for old words when they are encountered. Vocabulary development, therefore, consists of both knowledge and skill. Schools in developing countries, like India, have many diverse problems as institutional, human resources and materials, which make complicate the task of an educator. Several researches on socio-linguistics are going on to identify the important social variables influencing upon the learning of the language structure. The present study is an attempt to find the vocabulary proficiency in Bengali on the criteria of two strata-sex and residence.

Objectives : The objectives of the study are :

(i) to measure the extent of vocabulary of the boys and girls in urban and rural areas. (ii) to find out the differences, if there might be any, in vocabulary proficiency between boys and girls, between urban and rural students and interaction between them.

Hypothesis : The following hypotheses are formulated to test :

H_1 : Boys would show better performance in vocabulary in Bengali than the girls.

H_2 : Urban students would show better performance in vocabulary in Bengali than the rural students.

H_3 : Urban boys would show better performance in vocabulary in Bengali than the urban girls.

H_4 : Rural boys would show better performance in vocabulary in Bengali than the rural girls.

H_5 : Urban boys would show better performance in vocobulary in Bengali then the rural boys.

H_6 : Urban girls would show better performance in vocabulary in Bengali then the rural girls.

METHOD

Sample : 520 students studying in class *X*, under W. B. B. S. E., from two urban schools (one boys[1] and one girls[1]) and two rural co-educational schools of Howrah and Nadia districts of W. B. are selected as the sample of the study. Among them 260 students are boys and girls are also of same number.

Tool : A Standardised Vocabulay Test (Bhattacharyya) consisted of 408 wards for class *X* is administered to measure the vocabulary proficiency in Bengali. The tool is

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divided into two parts to facilitate the administration. One and half hours are scheduled for the administration of the tool. The co-efficient of correlation and the validity co-efficient are 0·92 and 0·85 respectively.

Design : Two independent variables-sex and residence and the dependent variable vocabulary proficiency in Bengali are identified for the present study. The hypotheses are tested against the 2×2 factorial design and the technique of analysis of variance is employed. The first independent variable, sex is varied in two ways-boys aud girls. The second independent variable, residence is also varied in two ways-urban and rural.

Procedure : The tool is administerd among all the 537 students (class *X*) of two urban schools (one boys and one girl's) and two rural co-educational schools. Among them, 520 students (260 boys and 260 girls/260 urban and 260 rural) are selected randomly for the analysis.

RESULTS

The distribution of scores of the students in the vocabulary tool is not a normal one. With the object of getting a more clear picture of the nature of distributions of scores in vocabulary, mean median, standard deviation (*SD*) skewness (*SK*) and kurtosis (*KU*) of each category have been computed in Table I.

Table 1 : Mean, Median, SD, and SK, KU of the vocabulary scores.

Group	Mean	Median	SD	Sk	Ku
U B	265·70	279·50	97 80	0·423	0·111
U G	163.10	144·50	57·60	0·968	0·245
R B	109·70	107·00	43·20	0·188	0·259
R G	146.00	127·00	56·40	1·010	0·308
U	212·30	184·50	94·50	0·882	0·319
R	123.50	114·50	51·60	0·523	0·229
B	177·80	137·00	105·60	1·159	0·258
G	155·90	140·21	57·60	0·817	0·273
Total	167·90	138·73	88·20	0·992	0·224

U=Urban; R=Rural; B=Boys; G=Girls

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From Table-1, the distribution of scores of the students in the vocabulary tool in the groups and total means, medians, SDs, SKs and Kus are found. These indicate that, (i) distribution of the scores are not normal, (ii) all are positively skewed except only the *UB* group and (iii) all are mostly teptokurtic (Ku < 0·263) except only *UB*, *RG*, *U* and *G* roups.

Table-II indicates that regarding the effect of sex variation, the *F*-ratio (2·31) is not significant even at ·05 level of significance ($P > .05$). It reveals that there is no significant difference between the boys and girls in respect to their proficiency in vocabulary in Bengali. Thus, the hypothesis H_1, that the boys would show superior performance in vocabulary in Bengali, is rejected.

Table-2. ANOVA for the Vocabulary Scores

Source	*df*	*Ss*	Variance	*F*
Sex	1	11760·0	11760·0	2·31
Residence	1	98253·0	98253·0	19·30**
Interacion	1	54601·7	54601·7	10·73**
Within Class	516	2626507·08	5090·13	
Total	519	2791121·78		

**Significant at ·01 level of significance.

To study the effect of residence it is noted that *F*-ratio is 19·30, which differs significantly at the ·01 level of significance ($P < .01$). This reveals that urban students are superior in vocabulary proficiency in Bangali than the rural students. Thus, the hypothesis H_2 is retained. The interaction effects between the sex and residence are also found significant at ·01 level ($P < .01$). For further analysis the *t*-tests are computed.

Table-3. *t*-Values for the vocabulary Scores.

Groups	*t*-value	*df*	Significance
UB Vs. UG	2·61	252	Significant at ·01 level
RB Vs. RG	1·49	254	Not significant even at ·05 level
UB Vs. RB	3·05	276	Significant at ·01 level
UG Vs. RG	0·88	240	Not significant even at ·05 level

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Table-III reveals that the *t*-value (2·61) between the urban boys and urban girls is significant at ·01 level of significance ($P < ·01$). This indicates that urban boys ($M = 265·70$) show better performance in vocabulary in Bengali than the urban girls ($M = 163·10$) and thus the hypothesis H_3 is retained.

But the *t*-value (1·49) between the rural boys and rural girls is found not significant even at ·05 level of significance ($P > ·05$). Thus, it appears that there is no significant difference between the rural boys ($M = 109·70$) and the rural girls ($M = 146·00$). So, the hypothesis H_4 is rejected.

The *t*-value (3·05) between the urban boys and the rural boys is found significant at ·01 level of significance ($P < ·01$). It reveals that urban boys ($M = 265·70$) show better performance in vocabulary in Bengali than the rural boys ($M = 109·70$).

Thus, the hypothesis H_5 is retained.

The *t*-value (0·88) between the urban girls and the rural girls is found not significant even at ·05 level of significance ($P > ·05$). It indicates that there is no significant difference in vocabulary performance between the urban girls ($M = 163·10$) and the rural girls (146·00). Thus, the hypothesis H_6 is rejected.

DISCUSSIONS

It was evident from the study that there was no significant difference between the boys and girls on the vocabulary proficiency in Bengali. Thus, sex as an influencing variable did not produce any effect on the vacabulary proficiency. But, the urban students showed better proficiency than the rural students. This reveals that urban students get more opportunity to receive various stimulus from their daily life to develop their language proficiency. The reason behind this achievement may be due to the wide scope of making interaction for their language development. Furthermore, on the one hand, the interaction between sex and residence had a significant influence on promoting vocabulary proficiency and the urban boys showed significantly better proficiency in bocabulary than urban girls as well as than the rural boys. On the other hand, there were no significant differences between the rural boys and the rural girls as well as urban girls and rural girls. Thus, the urbanisation as a social variable may promote greater proficiency/in Bengali, in general and specially among the boys in particular.

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A Study of Sense of Responsibility in Adolescents

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Undertaking a study on sense of responsibility is new and encouraging thrust for researchers. As a concept, it is of vital importance to learning-teaching promises. The study was carried out on students of main academic streams of urban setting on Faizabad (U. P.) division. The data were analysed through two tailed system to correspond hypotheses. Responsibility among adolescents of science was comparatively more than those of remaining streams. Non-significant correlation with SES and significant negative correlation with frustration are reported and discussed.

INTRODUCTION

Pupil is the most significant person in learning-teaching promises. If education relates to national mobility, the focus has to be shifted to adolescent's personality which is shaped in and beyond classrooms. Constellation of traits are involved in development of personality. Responsibility, is one of them. To Pandey (1985) attainment of such a responsibility is essential if the adolescent is to become socially useful psrson and of maximum use to himself. Thus the development of personality depends to large extent on the degree of sense of responsibility Standards of responsibility are highly developed in adolescence.....(Havinghurst and Tabe, 1949) Responsibility is not a quality with which we are born but emerges out of chances (Manheim and Steward, 1962). To comb (1979) it is not in born characteristics and is learned in the process of growing up. Pandey (1985) also opines that responsibility is learned like any other subject through experience and many factors which are conducive to proper learning of responsibility in school and home may affect the proper development sense of responsibility.

Good (1973) defines responsibility as the obligation that in individual assumes when he accepts a general work, assignment or job to perform properly the functions and duties that have been assigned to him to the best of his ability in accordance with the directions of the executive to whom he is accountable. Studies on sense of responsibility are rare. The work of Pandey (1983) who constructed a scale and studied correlationship

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with few factors like anxiety, *SES* intelligence & level of aspiration on secondary school students, may be taken encouraging. The present investigation is rather an extension by keeping few other factors in mind on college students.

Objectives :

(1) Comparing responsibility performance of adolescents of academic streams-Science, Arts and Commerce.

(2) To ascertain whether frustration has any effect on responsibility performance of students.

(3) To see whether sense of responsibility is related to socio-economic conditions and frustration.

Hypotheses tested :

(1) No difference exists in mean responsibility performance of adolescents belonging to various academic streams.

(2) Frustration has nothing to do with adolescents sense of responsibility.

(3) There is no relationship between sense of responsibility and socio-economic status.

(4) Responsibility of youth is not at all related to frustration.

Tools & Techniques : The sample of the study consisted of 400 college students drawn by using proportionate method of rendom sampling from Faizabad division. Male students of first year degree course from Science, Commerce and Arts streams were taken for filling in questionnairs. Responsibility scale of Pandey and Upadhyaya & a personal data sheet was used in collecting data. Measures of central tendency variability, Principles of N. P. C., critical ratio and coefficients of correlation were worked out for analysing the data.

Table-1 : Mean Responsibility Performance of Adolescents.

Adolescents	N	M	S. D.	C. R.	*P*
(A) Science	70	123·50	9·70	3·82	0·01
Arts	300	118·86	9·80	3·82	0·01
(B) Science	70	123·50	9·70		
Commerce	30	122·84	8·20	0·53	N. S.
(C) Arts	300	118·86	9·80		
Commerce	30	122·84	8·20	2·67	0·01

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Table-2

Groups	Arts			Science			Commerce		
6666	N	M	S.D.	N	M	S.D.	N	M	S.D.
H. F. G.	42	116·88	9·01	11	118·26	5·62	6	123·20	2·98
L. F. G.	50	121·76	8·55	12	129·82	8·13	7	119·76	3·80
t		2·65			3·82			1·68	
P		0·01			0·01			N.S.	

Table-3 : Coefficients of correlation between variables.

Variables	Frustration	S. R. S.	S. E. S.
Frustration	—	— 0·54	—
S. R. S.	—	—	0·06
S. E. S.	— 0·52	—	—

An observation of Table-1 corresponds to objective as well as hypothesis no. 1. A significant value of critical ratio at 1 percent confidence level is sufficient to reject the sub-hypothesis to mean that responsibility among the students of science is more as compared to those of remaining streams. Similarly in comparison to commerce, students of arts stream are found-to-show more sense responsibility. In brief the hypothesis was partly accepted.

The second hypothesis refers to Table 2 which examines sense of responsibility in high and low frustration groups. A look on significant *t*-values shows that first two sub-hypothesis are not acceptable. It means youths suffering from frustration is caught in a behaviour which is considerably more oriented towards irresponsibility. The last sub-hypothesis is accepted on the ground of non-significant *t*-value to mean that here no effect of frustration was observed. Commensurate to first two hypotheses which are

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rejected, Pandey (1985) opines that energy of frustrated persons is not utilised in right direction. Some relationship therefore can not be ruled out between the two.

The objective as well as hypothesis-3 refer to Table 3. The no relationship hypothesis is accepted since the coefficient of correlation (r=0·06) was not significant. It means this quality is independent and is not any way influenced by socio-economic factors. These findings are in agreement with that of Pandey (1985) who also reports a non-significant correlationship. Contrary to this. Srivastava (1979) reports significant difference in mean responsibility scores against socio-economic variables.

Objective-3 and hypothesis-4 need a look on Table-3. A significant co-efficient of correlation (r=0·54) shows that 'no relationship' hypothesis stands rejected. It means relationship exists between frustration and responsibility. Further the more is frustration, lesser will be degree of responsibility. It indicates that frustrated people sheldom show responsibility. Situation is not seriously taken by them. For example their response against below mentioned items are different--

(a) There is no harm in missing few classes every month.

(b) The prestige of family does not come down only by my deviation from family ideals.

(c) Attending class lectures late by five minutes every day does not matter for me.

Such a negative tendency might be the outcome of distorted personality. In this way responsibility of adolescents should be considered affected by their frustration Srivastava (1979) Pandey (1985) and Singh (1991) also report in similar vein.

CONCLUSION

Responsibility is an important facet of adolescents personality. It is learned by experience & maturity. If adolescent is to be made socially useful, the sense of responsibility has to be adhered in the interest of smooth running of the nation. A comparative study reveals that the quality is more with the subjects of science discipline than those of arts. There are factors which are found to influence their degree of responsibility. Both in arts and science discipline, significant negative effect of frustration was found. As far as relationship concerns socio-economic status was found to be not affecting the process of inculeating responsibility. Although frustration was found to be significantly correlated to socio-economic influences. Sense of resposibility has also relationship with adolescents frustration. In nut shell the study suggests establishment of counselling and guidance clinics at schools & colleges to see that some endeavours indirectly elevate the learning facility. What is more important is to help the adolescents not to develop 'failure-complex' with them. A review on position of major hypothesis reveals that no. 1 and 2 are partly rejected. The third is accepted while fourth is rejected.

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A Comparative Study of Nutritional Status and Personality Traits of Children Belonging to Working and Non-Working Mothers

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Sound Nutrition and healthy environment are basic requirements for a perfect, healthy personality. Each child's physical growth, development and personality are largely affected by the presence or absence of mother at home. To cope up with the rising prices mothers have started working outside homes, leaving their children with servants or in day-care centres. The study revealed that working mothers were more educated than non-working, their family income was more, they preferred to have one child and took jobs when their children were of 3—5 years of age and the child was left in day-care centre when they were on their work, they breast fed their infants for an average duration of 5—8 months while non-working mothers gave breast milk for 9—12 months, but the age of receiving the first semi-solids was the same in both the groups.

Prevalence of serious illnesses in infancy or early childhood was more in children of working mothers. Non-working mothers 'children were heavier and had more of chest-circumference than working mothers' children The calorie intake of working and non-working mother's children was below and above the RDA's respectively, while the consumption of fat and proteins in majority of children of both the groups was above their RDA's, thus leading to imbalance in macro-nutrients Children of working mothers were extrovert, independent and unfrustrated while non-working mothers' children were introvert, dependent and frustrated.

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INTRODUCTION

Sound Nutrition and healthy environment are basic requirements for a perfect, healthy personality. The food makes the body strong and the body is intimately connected with the mind. Each child's physical growth, development and personality are largely affected by presence of mother at home. Quality child-care at the infant stage is hard to find. Care and attendance in sickness, breast feeding and maternal attention at such a tender age makes the presence of mother at home an asset. A mother can never be replaced by anyone, including the father, in the first two years. To cope up with the rising prices and to maintain a decent standard of living mothers have started working outside homes, leaving their children with servants or in day care centres. The joint family system is no longer preferred because young parents do not want elder's interference and this deprives the young child of the care-form their grand parents.

So based upon the above facts the present-comparative study on children of working and non-working mothers was undertaken with the following objectives :

1. To study the food preferences and dietary intake of children.
2. To calculate the intake of calories, carbohydrate, protein, fat calcium and iron.
3. To assess and compare the nutritional status of these children.
4. To study the relationship of nutrient intake with the personality of the children.
5. To relate the effect of working and non-working condition of the mothers on personality of their children.

METHODS AND MATERIALS

For present study 100 children of 7 years of age were selected. Fifty children belonged to working mothers while another fifty to non-working mothers. Only those working mother's families were taken where the mother was employed in a 9 to 5 job and children were left in the care of servants and cretches etc, but not with any family members e.g, grand mother or any relative, therefore nuclear families were chosen. The interview schedule comprised of pre-tested structured and open-end, questions under the following categories.

1. General information.
2. Information on feeding practices in infancy and present food preferences.
3. Information on illnesses suffered. The nutritional status of the child was assessed by Dietary survey and anthropometric measurements (O P. Ghai 1978)[1]. Clinical visual examination, classification of various forms of mal nutrition was based on the combination of anthropometric measurements and indices such as height

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with weight for height or weight in grams/height^2 (Sq. cm) Vishweswara Rao 1985)[2].

4. Study of the personality traits was done by using 'Early School personality Questionnaire'—By (Catell)[3] and the scoring was done according to the manual instructions.

RESULTS AND DISCUSSION

1, Working mothers were more educated than their non-working counter parts, their family income was more because of two salaries. Although majority in both the groups had two children, working mothers preferred to have one child as compared to non working mothers. Majority of working mothers (54%) took jobs when their children were of 3-5 years of age and the child wes left in day care centres (62%) when she was away on her work. The reasons given for working outside the home was to raise family income in present days of rising prices. Even some of the non-working mothers wanted to work for economic uplift of their families but could not do so because of lower education and small child to look after.

2. 96% of working mothers breast fed their infants for an average duration of 5-8 months while 72% of non-working mothers gave breast milk for 9-12 months but the age at which the child received his first semi-solid food was the same in both the groups. There was not much difference in selection of different kind of weaning foods.

3. Majority of children in both the groups were vegetarians and were following 'four meal pattern. Some of working mother's children were missing breakfast and lunch frequently. (Richard 1972)[4] found that children taking breakfast in the morning are more likely to have overall satisfactory daily intake of nutrients. It has been suggested that lack of breakfast is responsible for the lack of concentration among children in the morning period.

4. Milk with cereal (in form of bread or paratha) was the common preference in both the groups. Paratha dominated the packed lunch of the children (76% and 78% of working and non-working mothers' children respectively). Children in both the groups liked 'fried Rice, milk with Cocoa and milk shakes, cakes, pastries, carbonated soft drinks, plain salads, plain soups and dosa'.

5. Health information revealed that children belonging to working mothers (72%) had suffered from cold but frequency of suffering from the childhood ailments was once in 6 months. Prevalence of serious illnesses in infancy or early childhood was also more in children of working mothers. More of non-working mothers were giving tonics to their children than working mothers although the later could afford to buy it. Visual examination showed no signs of any nutrient deficiency in both the groups.

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According to Bernie. S. Seigel (1988)[5] passive emotions produce over-secretion of harmones which suppress the immune system and thereby increase the frequency of sickness. Robinson and Lawler (1982) favoured the fact that initiation in early life of preventive measures including diet can reduce the risk of chronic diseases in middle and later years of life.

6. Growth parameters revealed weight, height and chest circumference of working mothers respondents were below the standard values where as in non-working mothers respondents, except heigh, the weight and chest circumference were above the standard values for their age. But between the two groups, children of non-woring mothers were heavier and had more of chest circumference than working mothers children. This was statistically significant (Table-1). Majority of children of both the groups (60% and 90% respectively) were classified to have normal growth but 40% children of working mothers and 10% of non-working mothers children were classified as current moderate malnutrition cases.

Table-1. Growth parameters of Respondents.

S. No.	Growth Parameter	Age in Years	Mean of Standard	GR-I* Mean	GR-II** Mean	Calculated '*t*' Value	Tabulated '*t*' Value
1.	Weight in 'Kg.'	7	20·7	18·8 (17-21)	21·2 (16-24)	3·7	2·68
2.	Height in 'Cms.'	7	118·8	112·8 (111-115)	116·3 (109-125)	8·7	2·68
3.	Chest Circumference in 'Cms.'	7	55·7	53·8 (52-56)	56·3 (52-65)	7·1	2·68

* Working mothers, ** Non-working mothers.

A study (Chaudhary, 1986), revealed that there was higher prevalence of malnutrition in children of working mothers. He found that working status of mother does affect the nutritional status of children but depends on the type of mother, surrogate taking care of child in absence of mother.

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7. The calories and nutrient intake of children under study revealed shocking results.

The calories intake by working mothers children was below and of non-working mothers was above the recommended allowance for their age. The Carbohydrate intake was very low while the consumption of proteins and fat in majority of children in both the groups was much above their RDAS. This led to gross imbalance in proportion of the macro-nutrients furnishing energy. The CHO, protein and fat should give calories in the ratio of 85 : 8 : 7 (ICMR-1989) but the mean values in the present study were 45 : 16 : 40 in working mothers children and 47 : 19 : 43 in non-working mothers children. The low carbohydrate meal fails to supply enough sugar to support the normal function of the nervous system and impairs the rate of energy production. "Not only will the brain be severely deprived of glucose, but the extreme restriction of carbohydrate will prevent the tissues from converting protein to sugar" (Watson, 1974). Studies done by Spring *et al* (1983)[10] have demonstrated that dictary carbohydrate manipulates serotenergic, neurotransmission and thus behaviour.

8. Intake of calcium and iron was either in normal range or above the RDA for their age group. This was confirmed by visual examination as none of these children were suffering from any signs of anaemia or calcium deficiency.

9. Relationship between nutrients consumed and personality traits of children revealed that majority of children in both the groups exhibiting both positive and negative traits (likc extroversion, introversion, dependency and Independent frustration and non-frustration) were those who consumed low CHO, high protein and high fat diets.

(Wurtman 1984) reported that protein to CHO ratio of meal can be an important determinant of plasma tryptophan which affects the neurotransmitter synthes is in brain. Thus high protein, high fat and law CHO diet influence the personality of individual.

10. The effect of working and non-working conditions of mothers on child's personality revealed that 84% children of working mothers were extrovert, 80% independent and 76% unfrustrated while non-working mothers' children (60%) were introvert, 76% dependent and 60% frustrated, (Table-2).

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Table-2. Effect of working and non-working condition of mothers on personality of their children.

S. No.	Category	Personality Traits.											
		Extroverts		Introverts		Dependent		Independent		Frustrated		Unfrustrated	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1.	Working mothers children (T. No. 50)	42	(84)	8	(16)	10	(20)	40	(80)	12	(24)	38	(76)
2.	Non-working mothers children (T. No. 50)	20	(40)	30	(60)	38	(76)	12	(24)	30	(60)	20	(40)
3.	Clculated X^2 value.		20.4				31.2				13		
	Tabulated X^2 value.		6.63				6.63				6.63		

The above findings are in contradiction to the findings of Jay Belesky a child psychologist who in 1987 found that infants brought up in day-care centres were likely to develop insecure attachments to their parents. They showed more serious aggression, less co-operation, less tolerance, more misbehaviour and at times social withdrawal. But the findings of the studies by Lymic (1959) reveal that children of working mothers were high on the extroversion scale than children of non-working mothers. Similar findings were made by Hilderband (1955) and Mohan, *et al* (1973).

CONCLUSION

The following conclusion was drawn from the present study :

(1) Working parents are a reality in the present days of rising prices. They have higher income and smaller families than non-working (woman) families. Therefore, they have a better standard of living and can give better food and more of material comforts to their children.

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(2) The study revealed that majority of children were categorised to have normal growth but good purchasing ability was utilized in buying fashionable foods like cakes, pasteries, soft drinks etc. which led to increased intake of proteins and fat and low intake of CHO.

(3) The relationship between imbalance intake of macronutrients and personality was not very significant because of two factors i.e. nutrient imbalance and home environment (working and non-working mother) were influencing the child's personality.

(4) The effect of working and non-working conditions of mothers on personality of children revealed that working mothers' children were extroverts, independent and non-frustrated while non-working mothers' children were introvert, dependent and frustrated. Absence of mother at home made children independent, confident and happy while presence of mother at home made their children dependent, introvert and so, unhappy.

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Effectiveness of Afternoon Transmission of TV For Children in Terms of Their Achievement

Kiran Jaiswal* and Sandhya Jaiswal

INTRODUCTION

The television programmes are being extended to more areas through INSAT-1D. Afternoon transmission started from 26th January 1989 from Monday to Friday, time being from 1.45 p.m. to 2.45 p m., while the afternoon transmission on saturday already started a little earlier. From January 1990, the transmission time of afternoon transmission is from 1 p.m. to 2 p.m.

Most of the researches on the impact television on children have been conducted in the United States of America, Canada and England. In India television has become practically a part of life, it has been deployed to an extent that a large coverage has been extended more and more number of children are influenced by its programmes. As the magic of audio visual impact has been more than anything else, the television leaves its impact deeply on the children. Television has become one of the agents of socialization. Children view TV to the exclusion of other activities. However, the very medium of TV is feared to induce passivity in children. The TV is in fact desired to educate and recreate the children. But research studies and their reviews by various social scientists indicate that the current TV programmes, have also a negative influence on the development of children.

The impact of television on children has been considered to be more intense. The relative inexperience of children is likely to adversely affect their growth and development. Since a large majority of the audience in different countries are children, there is a need to conduct a series of studies of different nature focussing on the various dimensions of the TV programmes for children The study under investigation is one such attempt-

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Objectives : The objective of the study was to findout the effectiveness of TV for children in terms of their achievement.

Hypothesis : 1. There will be no significant difference in the mean of pre-test scores and post-test scores of government school children.

2. There will be no significant difference in the gain of the boys and girls of government school.

Sample : A total of ten programmes was recorded out of the children's programmes of afternoon transmission beamed by the Doordarshan between October 1990 to November 1990. The names of the programmes are presented as follows :

S. No.	Programme Name	S. No.	Programme Name
1.	Ek tha Bandar (Jiddi Bandar)	2.	Aao sekhen
3.	Bal katha	4.	Story time (Char bevkuph)
5.	Aao sekhen	6.	Story time
7.	Story time (Char dost)	8.	Natika (Don)
9.	Bal katha	10.	Aao sekhen

One government school was selected for the study. The school was selected because in them the 8 to 12 years children having workable knowledge of Hindi were available. Further every alternate student on the basis of Muster Roll was selected from standard IV and V. So, 25 boys and 25 girls were selected for the study.

Design : The present study is experimental in nature. In this study pre-test post-test single group design was used. The duration of treatment was 2 hour, 30 minutes. The treatment consists of video presentation of children's programmes of afternoon transmission. The effect of treatment have been studied in terms of achievement with the help of achievement tests.

Tools : The effectiveness of programmes could be assessed in terms of achievement of students with the help of achievement test related to children's programmes of afternoon transmission.

(i) Planning of Tool—Achievement test of children's programmes of afternoon transmission on the basis of the contents and objectives.

(ii) Preparation of Tool—The investigator played-back each recorded programme and after viewing each programme an objective type test was constructed by the investigator. This objective type test consists of different types of

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items i.e. simple recall type, completion type, alternative response type, multiple choice type, matching type and small answer type. So, in all 10 tests were constructed keeping in mind the objectives and points covered in each programme. There was a time limit for talking the achievement test i.e. it was a power test, as well as, speed test.

(iii) Tryout of Tool – Reactions of the experts were sought related to the language, the content of items, the structure of items etc. The achievement tests were modified on the basis of the suggestions received from them.

PROCEDURE OF DATA COLLECTION

The data were collected by under taking the following steps :–

(i) Recording of programmes.

(ii) Preparatlon of assessment tools.

(ili) Arranging viewing on V.C.R.–T.V. in a noise free room.

(iv) Briefing the viewers to focus upon

—Content of programes,

—Presentation of programmes.

(v) Administration of pre-test.

(vi) Programme viewing on V.C.R.

(vii) Administration of post-test.

(viii) The scoring and evaluation of the quantitative and qualitative parts of pre-test and post-test.

(ix) Sequencial arrangement of scores of boys, and girls on their pre-test and post-test.

Statistical Techiques : '*t*'-test was used to findout the significance of difference between the means of pre-test and post-test scores of children and significance of difference in the gain of the boys as compared to that of the girls of government school.

DATA ANALYSIS AND INTERPRETATION

The data were analysed in terms of gain of the children and gain of the boys as compared to that of the girls on TV programmes of afthrnoon transmission. It is evident from table-1 that in all the 10 programmes the obtained '*t*'-values (respectively 5·457,

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5·682, 6·172, 4·561, 5·563, 4·969, 7·106, 5-358, 5·681 and 5·457) are higher than the value which is required to be significant at ·01 level, so the vaiues are significant. Therefore all the 10 programmes have positive effect on learning.

Table-1. Significance of difference of the means of pre-test scores and post-test scores of government school children.

S. No.	Progrmmes	M_1	M_2	R	SE_1	SE_2	't'-value	DF
1.	Ek tha bandar (Jic di Bandar)	2·94	4·06	·700	·284	·170	5·457**	49
2.	Aao Sekhen	2·12	3·44	·820	·383	·392	5·682**	49
3.	Bal Katha	2·36	3·16	·793	·211	·184	6·172**	49
4.	Story Time (Char Bevkuph)	2·3	3·32	·687	·283	·282	4·561**	49
5.	Aao Sekhen	2·12	3·42	·820	·383	·395	5·563**	49
6.	Story Time	·96	1·88	·812	·244	·317	4·969**	49
7.	Story Time (Char Dost)	1·38	3·38	·793	·300	·452	7·106**	49
8.	Natika	2·14	3·06	·718	·246	·170	5·458**	49
9.	Bal Katha	2	3·42	·788	·370	·395	5·681**	49
10.	Aao Sekhen	5·88	8·12	·700	·569	·341	5·457**	49

** Significant at ·01 level.

It is evident from table-2 that in all the 10 programmes the obtained 't' values (respectively 1·161, ·589, ·607, 1·525, ·288, ·211, 1·875, 696, ·589 and 1·161) are not higher than the value which is required to be significant at ·01 level, so the values are not significant. Therefore all the 10 programmes have equal effect on leurning.

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Table 2 : Gain of the boys as compared to that of the girls of government school.

S. No.	Programmes	MB	MG	SD_1	SD_2	SEDM	't' value	DF
1.	Ek tha bandar (Jiddi Bandar)	·88	1·36	1·053	1·776	·423	1·161	48
2.	Aao Sekhen	1·16	1·44	1·624	1 733	·475	·589	48
3.	Bal Katha	·88	·72	1 053	·791	·263	·607	48
4.	Story Time (Char Bevkuph)	1·36	68	2 018	945	·445	1·525	48
5.	Aao Sekhen	1 04	1·2	1·593	2·273	·555	·288	48
6.	Story Time	·88	·96	1·332	1·337	·377	·211	48
7.	Story Time (Char Dost)	1·48	2·52	1·159	2·581	·554	1·875	48
8.	Natica	·68	·92	·802	1·425	·344	·696	48
9.	Bal Katha	1·16	1·44	1·624	1·733	·475	·589	48
10.	Aao Sekhen	1·76	2·72	2·107	3·553	·826	1·161	48

RESULTS AND DISCUSSION

Results related to hypothesis-one : In all the ten programmes the post-test scores of governmeut school children are significantly higher than their pre-test scores. So the null hypothesis is rejected. The TV programmes of afternoon transmission are effective for government school children.

Results related to hypothesis-two : The mean gain of the boys is not significantly different than the mean gain of girls in all the 10 programmes. So the null hypothesis is accepted. The TV programmes of afternoon transmission are equally effective for boys as well as girls of government school.

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CONCLUSION

(i) In 100% programmes the post-test scores of goverоment school children are significantly higher than their pre-test scores. So the TV programmes of afternoon transmission are effective for government school children.

(ii) The mean gain of the boys is not significantly different than the mean gain of girls in 100% programmes. So the TV programmes of afternoon transmission are equally effective for boys as well as girls of government school.

So, the TV programmes of afternoon transmission are effective for children. In a large number of the programmes there is no significant difference in the achievement of the boys and girls. It may be because TV is an audio visual medium. The visual stimuli support the audio stimuli or the language of delivery and compensate for the language lag. Otherwise, also TV is more of a video medium and visuals have their on language which is universal. However, new ideas and improvements in telecasting technique and in the field of instruction will raise Televison to its pinnacle of importance.

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Comparative Effectiveness of Differential Reinforcement of Incomptible Behaviour and Differential Reinforcement of other Behaviour on Aggressive Pre-School Children

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INTRODUCTION

Though the expression of aggression in the face of difficulties may be normal in children yet the persistent symptoms of violent and destructive behaviour when the child uses abusive language, hits and bites others, creates scenes, screams or stamps his feet, are clear signs of mal-adjustment. There are some children who are constantly at war with others. Their attitude towards others is that of hostility, revengefulness and suspicion. various behaviour modification techniques such as positive reinforcement, time out, response cost, modeling, cogingency contracting etc. are used to manage aggression. Fagan, Long, and Stevens (1974) have devised a self-control curriculum that emphasises affective and cognitive abilities. Splvack and Shure (1974) described problem solving skills in real life situations for teaching aggressive impulsive young childran. Kauffman (1981), after the perusal of research studies suggested modeling (imitation), role playing, positive reinforcement, extinction and punishment for managing aggression.

During the past two decades, many response elimination procedures have met with sharp criticism from general public. One such concern with the use of aversive contingencies is the concommitant production of emotional reactions which may interfere with new learning (Kazdin, 1975). Anger (Rachman, 1965) and crying and sulking (Martln & Pear 1978) not only interfere with new learning but also are unpleasant to the subject and to the change agent. In addition, some forms of aversive procedures may initiate maladaptive learning. For example, a parent employing physical punishment with the child increases the likelihood that the child will engage in physical aggression (Hoffman, 1960). Over-correction and time out (Pendergrass, 1972) have resulted in aggression toward the change agent. Rachman and Teasdale (1969) suggested that positive reinforcement should be routinely employed and aversive procedures must be utilized only when other procedures have failed.

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Acceptable alternative procedures, then would involve positive rather than aversive consequences and would be comparably effective (Homer & Peterson, 1980). Rewarding the child for performing behaviours which are incompatible (or prevent the occurrence of) the undesirable behaviour mao avoid the undesirable side effecto of aversive procedures and at the same time reduce the undesirable behaviour. Morris (1976) called this procedure as the differential reinforcer when the target resqonse does not occur for a given period of time may also avoid the undesirable side effects of aversive procedures and at the same time effectively reduce responding. Reynolds (1961) called such a schedule as the differential reinforcement of other behaviour (DRO).

DRI procedure was found to be effective in reducing aggressive behaviour (Peterson & Peterson, 1968 ; Tarpley & Shroeder, 1979; Tierney, 1986), hyperactive behaviour (Twardozz & Sajwaj, 1972; Baker, 1972; Hislop *et al.*, 1973) disruptive behaviour (Winett & Roach, 1973) and regurgitation (Mulick *et al.*, 1981). Negative results with DRI procedure have also been reported (Risley, 1968). DRO was also successfully used to reduce aggressive responses (Allen & Harris, 1966; Frankel *et al.*, 1976; Ragain & Anson, 1976; Repp *et al.*, 1976) disruptive behaviour (Bostow & Bailey, 1969) hyperactive behaviours (Patterson *et al.*, 1965), thumb sucking (Lowitz & Suib, 1978; Christensen & Saunders, 1987), rocking behaviour (Repp *et al* , 1974). Negative results have also been reported with regard to DRO (Fox and Shapiro, 1978). The investigator did not come across the studies related to the comparative work in the Indian settings, mixed results with DRI and DRO, and lack of research studies with regard to the comparative effectiveness of DRI and DRO inspired the investigator to take up the present study. In the present study relative efficacy of DRI and DRO was compared to for their effects on the reduction of aggressive behaviour using a control group experimental design.

METHOD

Subject : 15 aggressive pre-school children coming to anganwadi centres in Chandigarh served as subjects for the present study. The age of subjects ranged from 3 to 6 years. Children who had an average frequency of aggressive responses between 35 and 45 per 30-minutes of play period during the baseline period of two weeks were incuded. Again, children who had the score of 30 and above on Behaviour Problems Inventory (Murlidharan, 1961) were selected. Besides, all the subjects were having DQcomb between 90 and 110 on the basis of Developmental Screening Test by Bharathraj (1975) and Vineland Social Maturity Scale (Indian adaptation by Malin, 1965). Also, all children were from low socio-economic families (Srivastava, 1978).

Design : Control group experimental design on the lines of Craighead et. al. (1976) was used, There were three groups. two experimental one control, in the present study. Subjects were randomly assigned to each of the three groups. All the three groups were assessed before and after treatment on the criterion measure of aggression. Control group

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was given no treatment but was given pre- and post-test on the criterion measure of aggression. DRI and DRO procedures served as independent variables and their effectiveness was studied on the criterion variable of reduction in aggression in children. Variables of intelligence and socio-economic status were taken as controls. All the experimental conditions were carried out during the playperiod.

Procedure and Treatment Intervention: Before providing intervention to the subjects, homogeneity test was applied and all the three groups were found homogenous as F-value was much below the level of significance. Again, after having selected aggression as the target behaviour, its strength was recorded before intervention was instituted. The strength of the aggressive behaviour was recorded by measuring the frequency of occurrence of events of aggressive responses by the investigator over a period of 2 weeks (baseline period). The observations were recorded twice a week. Intelligence tests and socio-economic status scales were also administered so as to control intelligence and socio-economic status of subjects.

Intervention was provided to the selected 10 aggressive pre-school children through DRI and DRO procedures. In DRI procedure, subjects were instructed that they would be given reinforcement if they engaged themselves in cooperative play for the period of 5 minutes. Gradually the period was extended to 10 minutes. If the subject played cooperatively for a specified period of time, they were given social (praise) and material rainforcement (cookies, sweet, bread, tophies, toys etc) i.e., inforcement was provided contingent on compatible behaviour. In DRO procedure, subjects were instructed that they would get reinforcement if they did not engage in aggressive acts for the period of five minutes. During this period, if no aggressive act was noted, the subject was given social as well as material reinforcement. If the subject acted aggressively during the period, the period started afresh. Gradually this period was increased to 10 minutes.

Strength of the target behaviour i e., aggression was measured and recorded on the observation schedule prepared by the investigator twice a week. Each occurrence of aggressive acts or events was recorded. The intervention period lasted for 4 weeks. Thus, eight observations were recorded during the treatment period. Strength of the target behaviour of the control group was also measured and recorded simultaneously. BPI was readministered to record the aggression scores of subjects at the end of the intervention programme.

Reliability of the Data Observed.

Reliability of the data observed was estimated by the investigator. Concept of aggression was made clear to an anganwadi worker (AWW). She was further trained in observing and recording the frequency of aggressive responses/events for the total period of 30 minutes. Both the AWW as well as the investigator recorded the strength of aggressive behaviour of five subjects simultaneously. Reliability of event recording for five subjects ranged between 8'% and 98% with an overall mean of 90%.

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RESULTS

Mean differentials were worked out between the pre- and post-test scores on aggression of EG_1 i.e., children who were provided intervention through DRI, EG_2 i.e., children were provided treatment through DRO, and control group. These mean differentials are shown in Table-1.

Table-1 : Mean differentials between the pre- and post-test scores of EG_1, EG_2 and CG.

Groups	Pre-test	Post-test	*t*-values
EG_1	M=38 0 SD=4·85 N=5	M=9·6 SD=1·82 N=5	19·39*
EG_2	M=38·0 SD=3·61 N=5	M=12·6 SD=1·52 N=5	22 96**
CG	M=36·0 SD=1·87 N=5	M=36·0 SD=1·58 N=5	0

* $P < ·01$

The analysis of results (Table-1) yielded a significant effect of DRI procedure on aggression (t=19·39, $P < ·01$) and of DRO procedure (t=22·96, $P < ·01$). No significant change was recorded in the behaviour of subjects of control group (Figure 3). Effectiveness of DRI and DRO had also been indicated in Figure 1 & 2. Thus, both treatments had significant effect on aggressive behaviour of pre-school children.

Subsequently, mean differentials (t-values) were worked out between the last observations of EG_1 (DRI) and CG (control group), EG_2 (DRO) and CG, and EG_1 and EG_2. Results are presented in Table-2.

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Table-2 : Mean differentials between the last observations of EG_1 and CG, EG_2 and CG and EG_1 and EG_2.

Groups compared	M_1	M_2	SD_1	SD_2	*t*-values*
EG_1 — CG	6·8	45·0	2 17	3·94	19·01
EG_2 — CG	11·6	45·0	2·07	3·94	16·78
EG_1 — EG_2	6 8	11·6	2·17	2·07	3·58

* $P < \cdot 01$

Significant differences were observed between the last observations of EG_1 and CG ($t = 19\ 01$, $P < \cdot 01$), EG_2 and CG ($t = 16 \cdot 78$, $P < \cdot 01$) and EG_1 and EG_2 ($t = 3 \cdot 58$, $P < \cdot 01$). Thus, reduction in aggressive behaviour of pre-school children was the result of treatment provided to them through DRI and DRO procedures as significant differences were observed between the experimental groups and control group. Further, significant *t*-value ($P < \cdot 01$) was noted between EG_1 (DRI) and EG_2 (DRO) indicating the differentials in the effectiveness of the two procedures.

DISCUSSION

Both DRI and DRO procedures produced decreases in aggressive behaviour and reduction in aggression was significantly more high as compared to the control group. These results provide support for the use of DRI and DRO treatment procedures for the reduction of aggression found in pre-school children.

Pre and post-test results presented in Table 1 revealed a significant decrease in the aggressive behaviour/responses of pre-school children through DRI procedures. These findings support the findings of Peterson and Peterson (1968), Tarpley and Shroeder (1979), and Tierney (1986). Inspection of pre and post-test mean scores and mean differentials of DRO procedure also revealed significant reduction in aggressive behaviour. These results are in line with the results of Allen and Harris (1966), Frankel et. al. (1976), Ragain and Anson (1976) and Repp et al. (1976). However, no such reduction in aggression was recorded in the control group. These results clearly indicate effectiveness of DRI and DRO procedures.

Comparison of DRI and DRO treatment procedure has also yielded significant difference ($P < \cdot 01$) between the two procedures. Results given in Table 2, indicate that though both the treatment procedures were effective in reducing aggression yet DRI

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procedure was found to be more effective than DRO procedure, DRI may be more effective than DRO due to the fact that DRO does not involve the purposeful involvement of a pre-selected response. Consequently, it suffers from a potential disadvantage that is less apt to occur when DRI used (Harris & Ersner-Hershfield, 1978; Hobbs & Goswick, 1977). Furthermore, in cases of high rates occurrences of aberrant behaviour, it can be difficult to find out periods with no occurrence of aberrant behaviour for which to reinforce the individual (Baumeister & Rollings, 1976).

In sum, the present study provides a systematic attempt to see the effectiveness of DRI and DRO and to compare these two treatment procedures in the reduction of aggressive behaviour. Both the treatment procedures were found effective in reducing aggression of 10 pre-school children. However, DRI was found more effective than DRO procedure. Based on the results, it appears that DRI may be more preferred strategy when reducing/eliminating aggressive responses in pre-school children of average intelligence. The generality of these findings to other populations is yet to be investigated. Further, the small number of subjects included in this study limits the significance of the results. Finally, future comparisons should include data recording throughout the treatment programme and follow-up should be carried out.

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Structural Determinants of Status Aspirations of Adolescents

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This papar focuses on the social structural determinants and their comparative influence on the status aspirations of adolescents in society. First part of the paper contains conceptual clarification, a brief review of relevant studies related to the area, theortical perspectives etc. The second part contains summary and major findings of an empirical study by the author. Aspirations of adolescents regarding high social status is examined on the basis of different variables viz. region, family background, caste and sex.

INTRODUCTION AND THE DEFINITION OF CONCEPTS

Etymologically, the word 'adolescence' comes from the Latin word 'adolescence' which means to 'grow up' or 'to grow into maturity' ; the growth may be physical, social or psychological. It is a period between childhood and adulthood, with a learning towards the latter period. Analysing it at sociological and social-psychological levels, this period is characterised by a status-discontinuity (or discontinuity between statuses). The term status discontinuity needs some conceptual clarification.

As mentioned above, adolescence is a period between childhood and adulthood. These two periods are at two extreme levels in terms of physical, social, and psychological aspects of development. Childhood is a period of extreme dependence, both mentally and physically. Adulthood, as opposed to this, is a stage where people can think and act independently according to their own conscience to a greater extent. The transition of individual from 'childhood' to 'adulthood', therefore, corresponds to the development of

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physical structure and intellect, feeling of responsibility, aspirations for power, status, respect etc. and different role expectations. Thus this critical period of transition is accompanied by 'storm and stress'.

In this stage, the individual feels himself being detached from the 'childhood' status and not being recognised as an adult. This results into a feeling of status-lessnes and, therefore, a period of status-discontinuity. This is not solely individually created but the wider society is also responsible. The 'status' itself is something attributed by the society to the individual. Since the society fails to some extent in perceiving the identity crisis (which follows necessarily the status crisis), the affected individual himself feels a state of statuslessness or status depriviation. This is what actually manifests in the case of adolescence in society. Thus the crisis facing adolescence is "not a breakdown or catastrophe but rather a 'crucial period' when develc pment must move one way or another and when stable reference points in and around the young person must be established." (Brikson, 1977 : 5).

The adolescent's period, as pointed out earlier, is a period full of expectations, aspirations and fresh orientations towards life. This is also characterized by (a) adjustment or adaptation to him or her own developing masculine or faminine roles, (b) a craving for freedom from the tight familial relationships and (c) expectations regarding future roles – occupation, marriage, social involvement etc. Of these the first two i.e. (a) and (b) have to be analysed in psychological planes and the third can be better explored with a socio-psychological perspective and that is what we are trying to do in this paper.

The concept of aspiration, which need necessary clarification can be dealt with the help of a brief review of related studies in the following sub-section.

A brief review of related studies –The term 'aspiration' itself becomes ambiguous if one does not clarify it according to the nature of the study. Aspirations can be of two types viz. realistic and non-realistic. The former approximates to the term 'expectation' and the latter to 'ambition'. Without clearly clarifying this, if one approaches respondents the answers could be unreliable because of the differential perception of the term by different respondents. In simple terms, a person's expectations about his future is his realistic aspiration and his desire in mind about his future is non realistic aspiration. (One is unrealistic in the sense that he is not sure of its fulfilment). In every day usage, ambitions and aspirations are nearly synonymous and are often used interchangeably "Ambition means an eagerness or an ardent desire to achieve a particular end – rank. fame,

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honour, superiority or power. Aspiration means longing for and striving after something higher than oneself or one's present status." (Hurlock, 1979 ; 264). Aspiration also vary from person to person. Reasons for particular aspiration will also be different. There are many possible reasons for this. According to Krawn (1972) some of the reasons are ; conditions or experiences that lead to dissatisfaction with a present status and interest in a new one, status of the preceding generation, college experiences of family members and friends, father's occupational status etc.

Therefore, an individual's aspirations must be viewed from three angles : first, what aspects of it the individual considers important and desirable, or what he wants to do (may be unrealistic), second, how well he expects to perform forseeing the possible impediments (realistic) and third, how important the performance is to him, either in toto or in different units of activity.

Any sociological explanation of the term 'aspiration' should also consider the motivations behind it (so to say its psychological dimensions). Adler (1925 : 64) emphasized that everyone has a "life plan"—a purpose or goal—which determined his reaction. This life—plan, according to Adler, is generally developed early in life as a result of certain relationship between the person and his physical and social environment. Therefore, the person's aspirations are determined by a felt inferiority in some physical or social relationships. Lewin and others (1944) put less emphasis on the intimate need for achievement and stresses more on cultural pressures. He suggests that the social environment plays a more important role in determining a person's aspirations than some felt weakness, which Adler contended was the motivating force behind all aspirations. It is said that modern interpretations follow the line set by Lewin and emphasize the social and cultural determinants of aspirations.

The study of aspirations of adolescents must also include the analyses of different variables such as sex, family, caste, place of residence (rural/urban) etc. Another thinking on the same line of individual's aspirations is that of different orientations of the individual. These orientations-individualistic, collectivistic and future orientations—are depend on (a) the innate capacity of the individuals (b) the structural opportunities (at present) and (c) the cultural factors (Reddy and Bhatt 1971). The nature and type of aspirations are also depend on these factors but all do not carry equal weight. An adolescent is very much a part of his social structure and in that he has close knit relation with the family and caste/religion. According to some previous studies 'Adolescents are said to be influenced more by their peers than by their parent's (Coleman, 1961). Also some other scholars, like McDill and Coleman (1965) and Herriot (1963) found that the parental status and their influence have less impact on the adolescents' aspirations compared to the peergroup influences. But Simpson (1962) concluded the reverse. Several

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other studies revealed the family (educational, occupational and income background) as playing a decisive role in shaping the aspirations of adolescents and youth (Several westren studies analysed the family variable as influencing the aspirations of adolescents. See for example, Douglas (1964) Sewell and Shah (1967) etc). Regarding aspiration of males and females, many studies showed lower aspirations for latter compared to former (Poole, 1983). Females tend to aspire for traditional, white Collar and less professional occupations as against males who aspire for skilled, and highly professional occupations (Pandey, 1984). Some Indian studies have focussed on caste and rural-urban variables in determining the aspirations of youth which are not relevant to western studies because of the particularity of the social structure. Many other Indian studies have focussed on the values and aspirations of Youth in general taking some variables and neglecting some others.

The next section of the paper is the summary of finding of an empirical study conducted by the author in the area.

OBJECTIVES AND METHODOLOGY

Present study focuses on the aspirations of adolescents regarding their future social status. The primary objective of the study is to find out the relationship between social structure and the status aspirations of adolescents in India in General and that of Kerala in particular. The supplementary objectives (which certainly come under the primary or general objective) are as follows : (a) the relationship between family background and the status aspirations, (b) the relationship between the rural-urban background and the status aspirations, (c) the relationship between caste background and the status aspirations and, (d) the relationship between sex and the status aspirations.

Considering the changing status conceptions in Indian society in general (because of the swift transition from ascription orientation to achievement orientation) and the adolescents in particular, the following three indicators have been taken viz. education, occupation and income. (But to avoid any possible doubt regarding the researcher's objectivity in fixing these indicators, the respondents were asked what they think the attributes of social status ? The responses almost fully conformed to the set indicators). As an adolescent in Indian society is very much part and parcel of social structure the following components which are part of his interacting system (directly or indirectly and or consciously or unconsciously) have been taken as background variables : Family (status of family members as a whole), caste (Forward/backward) and place of residence (rural/urban). Male-female difference in the status aspirations have also analysed.

The family background is assessed after considering the educational, occupational and income background of the family. In many studies where family background is taken

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as one key variable have, assessed the educational, occupational and income background of parents only. This may be because those studies are conducted in social structures where nuclear families exist. But, this study pertaining to Indian social structure must take care of the educational, occupational and income background of all family members because of the fact that most of the families are extended on joint and the family size is generally large. Regarding the analysis of based on caste, we adopted the broader division of forward and backward castes and in the latter we included the 'locally' backward 'other backward castes.' Some hypotheses are also formulated on the basis of related studies and the specific objectives of the present study. They are (1) adolescents who are having higher family background likely to have higher status aspirations (H_1). (2) Urban adolescents have higher status aspirations than rural adolescents (H_2), (3) adolescents from forward castes have higher aspirations than those from backward castes (H_3) and (4) males have more aspirations than females for high social status (H_4).

Two colleges in Trivandrum district of Kerala were selected for the study. One is a rural college and the other an urban college. (Rural college and urban college are selected after considering the type of locality, nature of students etc. among other factors). The data were collected during the period, November 1987 to February 1988. The unit of the study is an adolescent between the age of 14 and 18. The sample is 100 (N=100). It consists of 30 rural males, 30 urban males, 20 rural females and 20 urban females. Detailed personal interviewes were conducted with all of them. From the college register, students were chosen using systematic random sampling. Quota sampling was used to ensure a sizeable number of male, female, rural, urban, forward caste and backward caste students. The data collected after the pilot test and pre-test, were classified and analysed in view of particular objectives with the help of statistical computations including chisquare test.

Brief analysis of major findings—The educational background of families of respondents from rural areas are very low when compared to that of respondents from urban areas and the respondents themselves perceived the reason as the nature of agrarian social structure The familial educational backgrounds of forward caste adolescents in rural areas are far better than those of backward caste adolescents in the same areas whereas their gap is considerably narrowed down in the case of urban areas. The rapid increase in educational institutions mostly centred around urban areas, created greater opportunities for urban people. There is a greate difference between forward and backward caste adolescents in their respective familial occupational backgrounds in both rural and urban areas despite the reservation policy over years. The corresponding gap can also be seen in the income levels.

Most of the respondents aspire for high social status in the society (81%). Of these 98% of rural as against 76% of urban, 90% of female as against 85% of male and 93·19% of backward caste as against 82·14% of forward caste adolescents aspire for

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high social status. Interestingly we can note that the 'weaker' (so called) section of the society-rural people, females, backward castes-show greater aspirations than their counter parts. This may be due to their increased perception of their present 'lower' status. As reflected in many earlier studies, the academic courses are still more popular with the rural adolescents and the professional and technical courses with urban adolescents (eg. Pandey, 1984). To the question of possible difficulty in achieving the educational goal, rural respondents pointed out their economic barr ers. But the percived economic difficulty is higher for urban middle class forward caste families than urban backward caste families. This is because, the backward caste students are confident that if they do their work with 'moderate' effort, there is every possibility to achieve the future status goals because of the special privileges conferred upon them by be Government. All the more they are more conscious than their rural counterparts in this regard. But the lower middle classes from urban forward caste groups feel deprived of any special privilege-and are not equally confident of educational goal achievement. Similar 'confidence' and 'security' dimensions can be seen in the occupational and income aspirations also.

Taking all the three aspirations viz. educational, occupational and income, the status aspirations of each category of respondents are analysed against the corresponding baekground variables with the help of chisquare test. Respondents from high family background (all indicators together) show higher aspirations for social status than the respondents from low family background. (df—4, ·01 level, 14·602 and 14·603 less significance), H_1 not rejected). Similarly respondents from urban areas show higher social status than respondents from rural areas (df—2, ·01 level, 28:26 : high significance, H_2 accepted). But the next two results made our two other important hypotheses (H_3 and H_4) incorrect : the relationship between caste and status aspirations (df—2, ·05 level, 3·317, no significance) and sex and status aspirations (df—2, ·05 level, 0 6733, no significance). Thus the findings reveal that female and backward caste adolescents are no longer passive or in a state of 'felt inferiority' but have clearcut aspirations for a better future like their respective counterparts.

The findings can be (and need to be) generalized in the wider framework of Indian social structure and its adolescents with some exceptions. (The considerable difference in the social conditions in Kerala as compared to other states, especially in terms of quality of life, is one such hurdle in generalization. For e.g. in the case of negative association between sex and status aspirations, it may be because of higher female literacy and increased social involvement of females in different fields in the state). But the findings, to a greater extent reflect the nature of the adolescents' societal perceptipns and aspirations in Indian society.

CONCLUSIONS

Adolescence, the period between childhood and adulthood, is a critical phase in human development. So far very little attention have been given to this stage for detailed

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analysis by sociologists and psychologists. Many conclude that this period is full of 'storm and stress', troubles, and emotional upheavals, but give little importance to the budding values, attitudes, aspirations and expectations of adolescents in general. Aspirations are the motivating force of every individual to pursue further in society. Corresponding to the peculiar transitional stage in life through which an adolescent is moving (which characterise a 'status discontinuity'), he moulds the kind of aspirations which are unlike that of the wider society. But his aspirations owe direct bearing on different components of the social structure in which he interacts and interrelates. There are variations due to different structural variables. The findings of the empirical study given above show the changing structural determinants of status aspirations of adolescents. They also reveal the importance of regional variable (rural and urban) and family background variable over variables of sex and caste (variables are not mutually exclusive) on the status aspirations of adolescents. The study also shows some other results which are socially significant, with respect to Indian social structure, such as the failure of reservation policy in achieving equal statuses for all castes, the weak information system and educational facilities in rural areas which impaired the adolescents from rural areas to come at par with their urban counterparts in terms of awareness of different possible future goals and means. The commonly held assumption that backward castes and other 'weaker' sections of society are passive and not interested to take important roles in society has been disproved.

The stage of 'adolescence' needs to be analysed deeply by sociologists and psychologists since the adolescents are to be guided in the right manner with respect to the social needs and goals and also, society should be adjusted and directed so as to fulfil their dreams and aspirations.

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The Environmental Influences on Behaviour

Asthana, M*. and Verma, K. B.**

INTRODUCTION

The individual organism comes into being and develops in a maternal environment which supplies nourishment and other biological needs and also provides both protective shielding and some opportunity for functional stimulation. These environmental supports are essential if the organism is to grow, or even to survive. Nature and nurture, both are equally important for the structural and ultimately functional development. Structural and the functional development are the outcome of the interaction of genes with their intracellular environment and of the interaction of the organism with its surroundings.

The problem of environmental influences becomes less a matter of general principles, and more a matter for specific analysis, when we turn our attention from the growth of the single individual to the factors which affect individual differences in behaviour. Environmental influence on behaviour do not constitute a single problem for which a single quantitative or qualitative answer can be found, but a family of problems, each with its own relatively complicated answer.

The environmental factors which relate themselves to the behaviour of an individual are legion. It would be difficult to name a factor in the environment calling forth a psychological reaction which might not have some relation to behaviour.

The first and most important place in a list of environmental factors influencing behaviour must be assigned to home. According to Frank (1948) family is the essential agency for the socialization of the young child and for introducing him to the culture in which he is to grow up and live. Lacking the necessary warmth of parental affection, the young child continues too long his egocentricity, develops fears, and begins putting up his defenses in the form of distrustful and revengeful attitudes. Cooper (1950) considers

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inadequate affection in the home and diffidence of parents concerning the social, emotional and moral development of their children as being the conditions most likely to lead to delinquency. Wallenstein (1937) studied the influence of broken homes on measurable conduct and concluded that inferior development in several aspects of character could be attributed directly to broken homes.

The influence of the size of family on behaviour of children has received some attention from investigators, but no general conclusions can be drawn. If a child gets the impression that he is not wanted by his parents, or if the presence of a younger brother or sister is interpreted as detracting from the affection and attention which he was receiving, he has greater difficulties in making satisfactory personality adjustment.

Symonds (1949) after an extensive study of Parent-child relationships, came to the conclusion that if one or both parents strongly reject a child, he tends to become over-aggressive, or hostile, and may resort to truency, lying and stealing. If, on the other hand, the parents exercise over-protection with a child, he tends to become overdependent, relatively helpless for his age, and non-cooperative in situations requiring give and take. As a result of overstrictness and over-inhibitive treatment in the home, the child becomes submissive and straitlaced with an overstrong superego. Thus extreme of parental reaction tend to have unfortunate effects on child's behaviour.

If one member of the family is neurotic or otherwise emotionally disturbed, it tends to bring about disequilibrium in the psychological atmosphere of the home and it results in both the emotional adjustment and the character organization of some or all members of the home. The economic situation in the home is an important factor influencing the behaviour of family members. Cognitive development of children is influenced by socioeconomic status. (Almy et al, 1966, Peisach, 1967 and Rao, 1976). Among adverse socio-economic conditions which influence the personality and behaviour are poor housing and sanitation, expouse to illness, inadequate health care, limited food availability, restricted education opportunities, large family size and unfavourable feeding and child rearing practices. (Cravioto, 1970).

Parental occupation, literacy and cultural atmosphere have been found to influence intelligence of children in the West (Wiseman, 1967) as well as in India (Chopra, 1970). This effect is probably mediated through socialization. The composite family atmosphere also influences intelligence functions (Agrawal et al, 1987).

The peer group and the school are also considered as major factors influencing behaviour of child. Hartshorne and others (1930) have made conclusion that the effect exerted upon one by his companions is greatest when they are present and in a position to influence his behaviour through immediate example, suggestion, and favourable or unfavourable reactions to his attitudes and behaviours. In small intimate groups, the standard of behaviour accepted in the group molds the behaviour of all its members

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atleast while they are together. This phenomenon is frequently noted in school and especially in individual classes. The school exerts its effect upon the behaviour of children in two ways-first, the influence of the teacher upon individual child and groups: and second, the influence of group spirit upon the members of the group.

Success, failure or simply the relationships found in the school setting all have an impact on the individual's personality and behaviour, in large part because of the great amount of time spent in school, when the values of the school conflict with those found in home, the seeds of new frustration are sown. Self-esteem and self-confidence can be built or destroyed here. An enormous amount of social learning takes place at the school age. Positive relationship between school environment and academic achievement have been reported by several investigators (Johnson and Lobb, 1961, Dave, 1963; Powell, 1964; Wolf, 1964; Bennet, 1967, Mosychuk, 1969; Tiratha and Gururaja, 1982; and Chatterjee *et at*, 1983).

The club membership also effects the behaviour of their members. It is found that club-members, no matter what the organization, are more co-operative than non-members (Hartshorne and May, 1928, 1929).

The other recreational sources like motion pictures, radio, television and magazines also effect the behaviour of individual. It was found that emotional responses, while seeing motion pictures, and restlessness after seeing them increased very highly. (Renshaw et. al. 1933 and Dysinger et. al, 1933). Riley and others (1949) studied matched television and non-television homes and found that television is proving to be responsible for new family interests, and providing something for the family members to do together.

Reading of book, and magazines is believed to be one of the foremost methods which can be employed for character development. In a study with delinquents, Healy and Brooner (1936) concluded that cheap novels and magazines dealing with bandit and underworld life act as a pernicious influence upon the character development of young people. Hoult (1949) found that delinquents read more questionable and harmful comics than non-delinquents.

The mores of the family, the peer group and the school are based on the specific cultures of each group. Opportunities differ for different groups. Adults and educated people have more chance to participate in society than do others.

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Every child is born in an over-all cultural matrix and is influenced by it through every individual and social institution with which he comes in contact. All the factors which comprise the personal environment and all the ramifications of class structure operate within this larger frame of the over-all culture. Customs, aspirations, attitudes, values and standards of conduct of every new generation are tremendously influenced by the culture in which it is born and reared. It is now generally accepted that the development of a child is influenced by an interplay of a large number of social, economic, cultural and psychological factors, both within and outside the family.

There are two major approaches to analyse the environmental influences on behaviour. One approach is based on the study of mental growth curves, and the other is based on impoverishment or enrichment of the environment. Hawlow (1962) studied the effect of early isolation on emotional and social behaviour of baby monkeys and found that social, emotional and sexual behaviour of the experimental group was markedly abnormal. They also tended to be submissive and fearful in threatening situations. This experiment also illustrate the concept of the critical period. The critical period idea is that the environment will have its greatest effect at a certain time in the life history of the developing organism. Human cases of extreme environmental impoverishment give ambiguous results. The controlled groups are often found lacking.

The animal studies on environmental enrichment illustrate that early environmental enrichment often has an enhancing effect on problem solving behaviour (King, 1958). Human studies of environmental enrichment have significant implications for social policy. Motivation, attention span, verbal skills and number ability are specific abilities for social policy for success in school and life. Relatively large gains have been obtained by enrichment programmes focussing, on the development of special skills which are needed in school (Bereiter and Englemann, 1968).

Thus in the conclusion, we may say that some behaviours of individuals are genetically controlled and are instinctive, but the environment plays a role in shaping these behaviours until the final form of the behaviour is no longer a simple matter of expression of a genotype. Then this newly shaped behaviour modifies other behaviours as they emerge. In other words, genetically controlled behaviour is modified and shaped by the environment ; this newly shaped behaviour then interacts with other genetically controlled behaviours to modify them and be modified by them.

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A Comparative Study of Adjustment Level in Tribal and Non-Tribal Hostel Residing Students of Sagar University

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In the present study 'Revised Adjustment Inventory (Kumar 1967) was administered on 130 Tribal Students (Oraon tribe) and 130 non-tribal students in age group of 18-23 years, resid ng in Sagar University hostels. Results reveal some striking findings that tribal and non-tribal male students differ on their level of adjustment, while the female students do not differ. These findings have been interpreted in the light of culture contact and acculturation process.

INTRODUCTION

Recently in India researches focusing upon different aspects of tribal life style and socio-cultural aspects of various tribes (Srivastava, 1978, Mishra, 1980, Sinha and Jha, 1980, Kapoor, 1980, Nagaich, 1987 and Rai 1989) have been accumulated. In India the tribals are having their own life style and have been cut off from mainstream of the country, even after various special facilities and amenities have heen provided to them for their upliftment, the majority is not coming out of their shells of primitive ways of life, clinging to their old customs, traditions and superstitions. A few studies (Saxena, 1980; Shrivastava 1979, 1980) indicated that the trivals and non-trivals differ in personality traits like self-image, authoritarianism, extroversion-introversion etc. Psychologists are interested to study the behavioural pattern of primitive tribes, as it is expected that the tribals are different from non tribals and that difference in personality traits has

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psychological and social relevance. It seems that tribals' distinct personality characteristics are responsible for rigid adherence to their culture. Therefore a proper understanding of their important personality traits is warranted to make the programme of their upliftment more fruitful.

Adjustment or adaptation of individual to environment is a problem which is crucial to the survival of the individual and the species. Inspite of the significance of adjustment process, scientific knowledge in this field is inadequate, because of lack of sufficient research work. Adjustment is dealt with the individual's ability to cope with his environment.

The 'Oraons' are one of the aboriginal tribals scattered in Jashpur, Sarguja, Raigarh area of Madhya Pradesh. The name 'Oraon' was given to these tribals by outsiders and it was believed that oraon is sect of 'Kurukhs' the main stream. They are mainly hunters, gatherers and agricultural labourers. They follow the andogamy for marriage.

There is hardly any study in behavioural pattern among the Oraons. In the present paper an attempt has been made to study the variable 'adjustment' in Oraon tribal students studying in Sagar University teaching department in comparison to their counterpart non-tribal students.

METHOD

130 graduate and post-graduate of Oraon students (including 100 males and 30 females) and 130 non-tribal students (including 100 males and 30 females) of age group 18-23 years residing Sagar University Hostels participated in this study. The tribal and non-tribal sample was matched on the economic ground.

Adjustment was measured with the help of 'the Revised Adjustment Inventory' (RAI) by Kumar (1967). The RAI consists 40 highly discriminating 'Yes-No' type of items. For scoring a 'No' response is assigned a numerical value of 1 except for the item 33 with the case of 33 'Yes' response is assigned a numerical value of one. Maximum possible score is thus 40 and minimum is 0. Higher the score higher the adjustment level in the test.

RESULTS AND DISCUSSION

The patterns of results found for the tribal and non-tribal students on the adjustment studied here, reveal some significant findings which are interpretable in the light of different life circumstances of our subjects.

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Table-1 : The table showing mean, S. D. and significance of difference between Tribals and non-tribals students on Adjustment.

Tribal Students			Non-tribal Students			Value of 't'	d. f. value	Level of significance
M	SD	N	M	SD	N			
25·18	8·93	130	26·75	6·93	130	1·50	258	NS

The Table-1 indicates that tribal and non-tribal students do not differ significantly on the level of adjustment. It seems that exposure to the urban culture makes them adjusted in their society, as they are living with the non-tribal students during the college hours and having similar experiences in all areas of life, they are equally adjusted with the non-tribal students.

Table-2 : The table indicating mean, S. D. and significance of difference between Tribal boys and Tribal girls on Adjustment.

Tribal boys			Tribal girls			Value of 't'	d. f. value	Level of significance
M	SD	N	M	SD	N			
24·89	6·55	100	25·8	6·94	30	1·66	128	NS

The Table-2 indicates that there was no significant difference between tribal girls and tribal boys students on adjustment level. The tribal girls (25·8) have higher mean value than tribal boys (24·89).

Table-3 : The table showing mean, S. D. and significance of difference between Non-tribal boys and Non-tribal girls on Adjustment.

Non-tribal Boys			Non-tribal Girls			Value of 't'	d. f. value	Level of significance
M	SD	N	M	SD	N			
26·96	6·48	100	26·03	5·35	30	1·89	128	NS

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The Table-3 depicts that the non-tribal boys and non-tribal girls do not differ significantly on the level of adjustment. This insignificant difference between non-tribal boys and non-tribal girls is not unexpected. The circumstances are more or less equal for non-tribal boys and non-tribal girls.

Table-4 : The table showing mean, S. D. and significance of difference between Tribal boys and Non-tribal boys on Adjustment.

Tribal boys			Non-tribal boys			Value of 't'	d. f. value	Level of significance
M	SD	N	M	SD	N			
24·89	6·55	100	26·96	6·48	100	5·73	198	·01

The Table-4 indicates that on the level of adjustment non-tribal boys differ significantly than tribal boys at ·01 level of confidence. Non-tribal boys (26·96) have higher mean value than tribal boys (24·89). Since the tribal boys are residing in separate hostels, therefore, do not mix up with others easily. They feel themselves isolated with non-tribal students. Sometimes higher caste students also look them down. These factors may attribute to the feeling of inferiority and poor adjustment.

Table-5 : The table showing mean, S. D. and significance of difference between Tribal girls and Non-tribal girls on Adjustment.

Tribal girls			Non-tribal girls			Value of 't'	d. f. value	Level of significance
M	SD	N	M	SD	N			
25·8	6·94	30	26·03	5·35	30	·36	58	NS

Table-5 indicate that on the level of adjustment tribal and non-tribal girls do not differ significantly, but the mean value of non-tribal girls (26·03) is higher than tribal girls (25·8). During their child rearing practices girls are specifically trained to adjust or cope with even somewhat odd situations, as they have to face a bit more hardships in facing real life situations. It seems that tribal girls are somewhat resistant in verbalizing their difficulties faced in urban educational set up and therefore show equal level of adjustment.

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CONCLUSIONS

Tribal boys have been found less adjusted in comparison to non-tribal boys. It may be due to socio-cultural and psychological feelings. Tribals boys are maintaining their separete identity and traditions from non-tribals. Their culture is quite different from non-tribal culture, which very significantly effect the personality of an individual.

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Level and Trends of the Literacy in Some Major States in India from 1971-2001 A. D.

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INTRODUCTION

Education has always been essential condition for human progress, indeed for human survival. No country can call itself civilized unless it provides for the education of its people.

Literacy and Education are necessary pre-requisites for any country's social pro ress. In india today, both of them are of special importance, for the 200 years long domination of the English colonizers has resulted in two-thirds of the population of that country not being able to read and write even now.

Literacy is defined in the census as the ability of reading, writing with understanding of a person. It brings social consciousness among the people in society and makes change in social milieu by changes in norms, values, customs and traditional way of life.

Literacy rate is generally defined as the percentage of literate persons in the total population. The Literacy rate is computed after excluding the population under 5 years of age, in this case it is called the 'Effective Literacy rate'.

The rise in the level of literacy is considered to be one of the powerful indicator of social development. In the view of the importance of literacy the present study has been taken up for some major states of India.

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METHODOLOGY

For intercensal and post-censal estimation of population many methods have been developed. These methods are arithmatic mean, geometric mean, exponential growth function, ratio method, logistic and Gompertz curves. These technique functions are basically under the assumption of the form of time series. Some other methods have also been discussed according to the availability of data [1]. Here, the discussion is made on the method used for future estimate of literacy rate [2]. In India the literacy rates at the state level were found to be very low level of increment in the initial periods and increases upto certain level and later remains more or less at the same level. For such pattern of the growth of literacy rate, fitting of logistic curve (known as Pearl-Reed curve) was found to be more suitable mathematical model for future estimates.

The simplest form of Pearl-Reed curve model is

$$Y_t = \frac{K}{1+10^{\alpha+\beta t}} \qquad (2\cdot1)$$

where Y_t is literacy rate at given point of time 't'.

In this form, the logistic curve will always have an upper asymptote of K, and lower asymptote of zero. But here 'K' denotes the maximum value, which has been considered $K=100$, to estimate the 100 percent literacy. The constant α and β are to be estimated. To fit the equation (2·1) by the selected points requires at least two census periods. The two selected values through which the Pearl-Reed curve will pass are the 'Y' values associated with these two years.

The constants α and β are obtained by the following equations :

$$\alpha = \log\left[\frac{K-Y_0}{Y_0}\right] \qquad (2.2)$$

and

$$\beta = \frac{1}{n}\log\left[\frac{Y_0\,(K-Y_1)}{Y_1\,(K-Y_0)}\right] \qquad (2.3)$$

where Y_0 and Y_1 refers to values at initial and final years.

By using 1971 and 1981 census data of literacy ratio for total, rural, urban, male, female population, the Equation (2·2) and (2·3) have been solved to get the value of α and β, and finally literacy rates have been estimated on the given point of time by Pearl-Reed model.

Source of Data : The present study mainly based on the data available in the censuses.

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ANALYSIS OF DATA AND DISCUSSION

Table-1 : Estimate of the effective literacy rates of selected states of India 1971-2001.

States	Year 1971*	1981*	1986△	1991	1996	2001	Percentage increases of literacy (from 1981 to 2001)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1. Andhra Pradesh	28·52	34·09	37·06	40·14	43·29	46·50	+36·40
2. Bihar	23·35	30·24	34·08	38·15	42·39	46·74	+54·56
3. Gujarat	41·84	49·90	53·95	57·96	61·87	65·63	+31·52
4. Haryana	31·91	41·67	46·86	52·13	57·35	62·41	+49·77
5. Kerala	69·75	78·92	82·67	85·87	88·56	90 80	+15·05
6. Madhya Pradesh	26·37	32·25	35·43	38·75	42·18	45·68	+41·64
7. Mahara-shtra	45·77	53·60	57·47	61·25	64·91	68·39	+27·59
8. Karnatak	36·83	43·94	47·61	51·31	54·99	58·62	+33·41
9. Orissa	30·53	38·83	43·27	47·83	52·43	56·98	+46·74
10. Rajasthan	22·58	28·39	31·61	35·02	38·58	42·28	+48·93
11. Uttar-Pradesh	25·44	31·38	34·61	38·00	41·50	45·10	+43·72
12. West Bengal	38·86	46·24	40·01	53·79	57·52	61·17	+32·29
13. Tamil Nadu	45·40	52·64	56·24	59·77	63·20	66·51	+26·35
14. Punjab	38·69	46·30	50·19	54·08	57·93	61·68	+33·22
India	34·46	41·44	45 08	48·78	52·49	56·17	+35·54

Source : * Child in India : A statistical Profile ; Govt. of India, Ministry of Welfare, New Delhi, 1985, pp 233—235.

△ Since 1986 the effective literacy rates estimated on the method discussed in this paper.

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Table-1 describes the estimate of the effective literacy rates of the 14 major states of India upto 2001. Among the 14 states Kerala found to have the highest effective literacy rate 69·75% and 78·92% in both census of 1971 and 1981 respectively. The project effective literacy rate upto 2001 A. D. also revewls that the Kerala may aehieve about 91% of the effective literacy.

State like Karnataka, West Bengal, Panjab, Maharashtra, Tamil Nadu, Gujarat and Haryana have also showed high effective literacy rate more than 40%. The project effective literacy rate upto 2001 reveals that Gujarat, West Bengal, Tamil Nadu, Punjab, Haryana and Maharashtra may achieve effective literacy rate more than 60 percent.

But other states such as Uttar Pradesh, Madhya Pradesh, Bihar, Andhra Pradesh, and Orissa have shown 30-40 percent of the effective literacy rate 1981 census. The project effective literacy rate upto 2001 A. D. also reveals that Utter-Pradesh, Bihar, Andhra Pradesh, Madhya Pradesh and Orissa may not be able to 50 percent of the effective literacy rate.

Rajasthan has recorded the low effective literacy rate of less than 30 percent. The project effective literacy rate upto 2001 A. D. also reveals that Rajasthan may not be able to 50 percent effective literacy rate. Uttar pradesh rank 12th, in effective literacy ratio among the major states of India.

Table-1 also describes that the percentage of effective literacy for 1981 over 2001 has been the highest (+54·56) in Bihar and next (+48·93) in Rajasthan and the lowest (+15·05%) in Kerala. The percentage increase of effective literacy for 1981 over 2001 has been +43·72 in Uttar Pradesh.

The great disparity betwen different 14 major states is due to the uneven provisions between different states and population also varies in different states. Education facilities are not properly distributed between rural and urban areas. Urban areas have highest proportion of literacy contrast to rural areas and among urban areas it is due to the rich states having more facilities of higher education. They get more opportunities of employment also.

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A Study on Self-Concept and Academic Achievement of Scheduled Caste and Non-Scheduled Caste High School Students

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INTRODUCTION

To a great extent, the development of an individual and the progress of a nation depends on education. Therefore there is no denying the fact that education is an important instrument for human development and survival of the society. But our society is traditionally divided into hierarchical system and educational opportunities is unjust and unequal to culturally disadvantaged and alineated sections of the society.

However, since Independence, special incentive schemes have been launched by the Government to facilitate the educational growth of the scheduled castes and to bring them into the main stream of the society. No doubt, the scheduled caste students are, by and large (80%), the first generation learners in the institutions, but the progress and the findings of researches indicated that a rapid change is bring effected in the attitudes of the students of the weaker sections towards education. Even attempts have been made to identify the main determinants of academic achievement of SC students i.e., studies of cognitive and non-cognitive variables and its effectiveness on educational growth of disadvantaged section of the society.

Many studies appear to be in direction of acceptance of proposition that self-concept is one aspect of personality found associated with academic achievement. Studies

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of Walsh (1956), Mitchell (1959), Roth (1959), Shaw (1960), Payne (1962), Purkey (1970), Nelson (1970) and Sidwar (1971) have ensured that there is a positive association between positive self-concept and academic performance.

Even, more and more recent Indian studies like Vasantha (1969 & 1974), Singh (1978), Goswami (1978), Hindunaul (1980) and Agarwal (1982) revealed that there is a positive relationship between self-concept and academic achivement, whereas, the studies of Jayaswal (1974), found negligible and Ram Kumar (1972) found higher achievement associated with negative self-concept. Similarly, the studies of Saunders (1978), Nichols (1978) and Manav (1981) and Vasishtha (1989-90) explored that there is no significant correlation between academic achievement and self-concept.

So, on the basis of the review of researches, the investigator felt that there is a necessity (as no study has been undertaken or reported) to study on self-concept and academic achievement of SC and NSC high school students, which is the main objective of the present investigation.

METHODOLOGY

Sample : The total sample of the study included 120 adolescents (14 to 17 years with a mean age of 16 yrs) Consisting of 60 scheduled caste students (30 boys and 30 girls) and 60 Non-scheduled caste subjects (30 boys and 30 girls). The SC and NSCs were taken from 8 (eight) Co-educational institutions of Cuttack district, Orissa. The subjects were also matched with age, sex, area of living and birth order.

Tools & Technique : The subjects were administered Prakash's self-concept Adjustive check list which is measuring five independent dimensions of inventory. In order to know their academic achievement half-yearly and final examination marks were noted from the school records and percentage was calculated. The selection of the schools and the subjects was made applying a random sampling technique. Lastly data were analysed by using descriptive (M and SD) and inferential (two way ANOVA) statistics.

RESULTS AND DISCUSSION

To know the level of self-concept and academic achievement the obtained data were analysed by the help of ANOVA, and the results are given below:

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Table-I : Mean and SD of NSC & SC, and Total Boys and Girls on self-concept and Academic Achievement ; (N =60 in each group)

Sl. No.	Grouping Factors.	NSC		SC		BOYS		GIRLS	
		M	SD	M	SD	M	SD	M	SD
1.	Physical	20·50	2·15	18·57	1·63	19·95	2·24	19·08	1·82
2.	Social	20·38	2·46	18·00	2·10	19·83	2·44	18·57	2·60
3.	Intelleetual	19·89	1·65	19·13	2·12	20·06	1·88	19·21	2·02
4.	Moral	20 03	1·52	19·45	1·95	19·77	1·60	19·34	1·98
5.	Emotional	17·56	2·27	19·42	2·31	18·72	2·36	19·20	2·23
6.	Total Self-Concept	9·35	4·30	94·57	4·26	98·43	4·35	95 40	4·28
7.	Aca. Ach.	52·36	5·90	46·35	4·76	29·24	6·30	45·02	4·53

From the table-I it was clearly pointed out that except mean scores of emotional self concept of SC and girls, and moral self-concept of boys students all other mean scores were comparatively higher and it may be presumed that significant difference may occure between NSC and SC, and boys and girls on self-concept and academic achievement. So, to know the independent and interactive effects of caste and sex on self-concept and academic achievement the statistical technique of two way analysis of variance was applied.

The results of variance (F =ratio's) are given below :

Table-2 : F-ratio's on self-concept and Aca. Achievement.

Sl. No.	Dimensions	Caste	Ses	Caste and Sex
1.	Physical	23·28*	5·72*	1·23
2.	Social	33·57*	6·84*	1·27
3.	Intellectual	4·63*	5·36*	11·69*
4.	Moral	2·16	1·98	2·08
5.	Emotional	2·37	2·09	3·00
6.	Total self-concept	11·40*	13·57*	1·32
7.	Aca. Ach.	48·37*	23·00*	9·57*

*=Significant at 0·01 level.

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From the table-2 it was clearly revealed that there is a significant difference between NSC and SC students in Physical, Social, intellectual and total self-concept score rather than moral and emotional self-concept. Similarly, when sex (boys and girls) was taken into consideration it was also reported that no significant difference in moral and emotional self-concept between boys and girls. Like this, when sex and caste interaction with each other was calculated it was concluded that except intellectual dimension no significant difference was found out on total self-concept or there is no impact of caste and sex on self-concept. However, it can be safely concluded that NSC and the boys groups were better in self-concept as compared to their counterparts (mean score is high).

At the sometime, academic achievement of non scheduled caste vs. scheduled caste (caste). boys vs. girls (sex), and caste and sex (interaction) effects were significant at 0·01 level of significance. It means that there is a significant difference between academic achievement of NSC vs. SC students, and boys vs, girls. While the studies of Rani (1980) and Hirunval (1980) supporting the present study the study of Shah (1978) contradict the findings. But, all these observations may lead to the inference that enhancement of academic achievement is related with positive self-concept and they are complementary to each other' and the studies of Purkey (1970), Sidwai (1971), Singh (1978), Shah (1978), Sharma (1979), Hirunval (1980) and Agarwal (198?) supports the present investigation.

CONCLUSION

Once it is known that there is a positive relationship between self-concept and academic achievement the duty of the teacher is important, and efforts should be made to enhance the self-concept of scheduled caste students. For that, new innovative techniques, proper care and nourishment, provision of creative talent exercise, changing the attitude of NSC to mix freely with SC students, group feelings and fixation of responsibility, better motivation and participation in the major discussion etc., will increase the self-concept of SC students to a great extent. Even, parent-teacher associations, and proper education to illiterate parents of SC can strengthen their moral outlook and changes the negative attitudes towards education of their kinds, which, lateron have a greater impact over the child self-concept. If it is possible in practical sense, then there will be no difference in non-scheduled caste and scheduled caste students on self-concept and academic achievement, which was the matter of discussion and under present investigation.

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Locus of Control and Self-Esteem as a Function of Family Climate

Dr. B. P. Verma* & Km. Sangita**

The investigation was conducted to study the locus of control and self-esteem as a function of family climate. The sample consisted of 200 adolescent girl students. The results yielded that locus of control and self-esteem were significantly affected by the level of family climate. The significant differences in mean scores of locus of control and self-esteem of adolescent girl students were found as a function of their family climate.

INTRODUCTION

Since the locus of control construct was introduced into the psychological literature in the early 1960s, there has been an overwhelming abundance of research pertaining to the perception of control (Lefcourt, 1976). Familial antecedents of locus of control have also been inquired into. Crandall (1973) found that "coolness" and "criticality" on mother's part was often positively associated with internal locus of control scores obtained in young adulthood. Rohner et el., (1980) reported that parental expectance and rejection influence the locus of control of children. Children who perceived them selves as expected by their parents were more internal than children who perceived their parents to be rejecting.

Halpin *et. al.* (1980) found that instrumental companionship, nurturance, principled discipline and achievement pressure were positively related to internal locus of control while punishment to external locus of control. Nowicki and Schneewind (1982) concluded that internal perceived their family as an active one that value independence while external orientation was developed among children when family relationships were marked by a lack of harmony and exhibited fighting, conflict and tensions.

The self-esteem is another dimension of personality which has received attention of the researchers equal to that of locus of control. Consistently parental approval, acceptance and affirmation of the adolescents were found among several studies (Copersmith, 1967; Sears, 1970; Smart, 1970; Gecas, 1971; Peterson *et al.*, 1983; Gecas and Schwable, 1986) to positively correlate with adolescents' self-esteem.

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Bachman (1982) reported that strict disciplinary practices were internally related to boys-self-esteem. Thomas and Sananda Raj (1985) found that self-esteem loaded-significantly on family harmony, physical facility and parenting practices. Buri (1989) observed that both mothers' and fathers' nurturance were positively related to self-esteem as perceived by adolescents and parental authoritarianism was inversely related to self-esteem.

Review of related studies reveals that investigators have generally studied the relationship of locus of control and self-esteem with few components of family environment, However, there is hardly any study in which family climate in compact form has been taken and its influence over locus of control and self-esteem has been ascertained.

Therefore, in the present investigation the research focus was on exploration of differences in mean scores of locus of control and self-esteem of adolescent girl students belonging to high, medium and low levels of family climate.

Two research hypotheses were formulated for testing in the study. They were as under :

1. There will be significant differences in the mean scores of locus of control of adolescent girl students of high, medium and low levels of family climate.
2. There will be significant differences in the mean scores of self-esteem of adolescent girl students of high, medium and low levels of family climate.

METHOD

The present ex-post-facto study was conducted through descriptive survey method of research. The details with regard to sample, tools, data collection formation of groups and statistical techniques have been presented as under :

Sample : The sample of the study consisted of 200 adolescent girl students studying in 11th and 12th classes in two senior secondary institutions of Shimla city (HP). The cluster random sampling technique was used for the selection of the subjects. However, subjects were selected from arts stream only.

Tools : The following tools were administered on the subjects following the relevant instructions for data collection in the present study. The tools were selected by applying the criteria of suitability and trustworthiness.

1. Family Climate Scale (FCS)
2. Self-Esteem Inventory (SEI)
3. Rotter's Internal-External Locus of Control Scale.....(RIELCS)

A brief description of each of the tools is given in the following paragraphs :

Rotter's Internal—External Locus of Control Scale

Hindi Version of Rotter's Internal-External Locus of Control Scale developed by Dr. Anand Kumar and Dr. S. N. Srivastava (1985) was used to measure the locus of control of the subjects. The scale consists of 23 items and 6 filler items. This is a forced choice instrument. High score indicates belief in external (luck, chance, others etc.) and low score indicates belief in internal locus of control. The maximum possible score is 23 and minimum score is zero.

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Reliability of Hindi version of Rotter's Locus of Control Scale was determined by split-half and test-retest method. The coefficient of correlation were noted to be 0·88 and 0·85 respectively.

Rotter (1966) reported good discriminant validity for the scale by low correlations with such variables as intelligence, social desirability and political affiliation. Hindi version of the scale showed coefficient of correlation as 0 89 with English version of the scale and it was found to be significant at ·01 level of confidence.

Self-Esteem Inventory (SEI)

Self-Esteem of the subjects was measured by 'Self-Esteem Inventory' developed by I. Thomas and H. S. Sananda Raj. But prior to its use it was translated in Hindi. This Inventory has 25 statements which are rated by the subjects on five point scale. The maximum score is 125 and minimum score is 25.

The reliability of the inventory was found out by split-half method, after correction using Spearman-Brown Prophecy Formula (Garrett, 1969). The coefficient of correlation was obtained as 0·95. Further, test-retest reliability (with two weeks interval) was found to be 0·90. Both the coefficients of correlation came out to be significant at ·01 level.

The validity was established with the help of self-esteem scores obtained by means of teacher rating technique. The inventory was found to be valid tool for measuring self-esteem.

Family Climate Scale (FCS)

"Family Climate Scale" (FCS) (Hindi) by Dr. Beena Shah (1990) was used to assess the family climate of the subjects. It measures family climate in terms of inter-personal relationship between the parents and the child. It includes parents' attitude toward the child as perceived by him/her on ten dimensions viz., (i) Restrictiveness vs. Freedom, (ii) Indulgence vs. Avoidance (iii) Partiality vs. Fairness (iv) Attention vs. Negligence (v) Acceptance vs. Rejection (vi) Warmth vs. Cold Relations, (vii) Trust Vs. Distrust, (viii) Dominance vs. Submissiveness (ix) Expectation Vs. Hopelessness and (x) Open Communication vs. Controlled Communication.

There ore 90 items in all. It has been standardized on secondary school students. The test-retest reliability coefficients for all the dimensions of family climate were in the range of 0·69 and 0·83, and were found highly significant ($P < ·001$).

Validity of the FCS was tested against the judgement of twenty judges. On the basis of this, FCS was considered to have high validity.

DATA COLLECTION

The data were collected by administering the three tools described above, on the subjects. Prior to this, subjects were told regarding the purpose of the study and were motivated to respond to the items of the tools with sincerity and honesty. Concerned instructions were also given to facilitate the recording of responses. The scoring was done with the help of keys prepared by the authors of the tools.

Formation of Groups : M±SD formula was applied to identify the subjects of high medium and low levels of family climate. The subjects who obtained M+1SD or above score, were treated belonging to high level of family climate. Similarly, subjects who got M-SD or below were regarded belonging to low level of family climate. Rest of the subjects were taken as belonging to medium level of family climate.

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Statistical Techniques: One-Way-Anova was used to findout the differences in locus of control of self-esteem of adolescent girl students. Protected '*t*' was used for post-hoc analysis to pin down the loci of differences.

RESULTS

In order to find out the differences in locus of control of adolescent girl students of high, medium and low family climate groups, one-way-analysis of variance was used. The obtained statistics have been reported in Table 1.

Table-1 : Summary of Analysis of Variance in respect of Locus of Control Scores.

Source of Variation	df	Sum of Squares	Mean Squares	F-Ratio
Among the Means of Conditions	2	685·247	342·623	27·128**
Within Conditions	87	1098·853	12·630	

(** = Significant at ·01 level)

Table 1 shows that the obtained F-ratio (27·128) is highly significant ($P < ·01$). This suggests that adolescent girl students coming from high, medium and low level family climate differed significantly with regard to their locus of control. Alternatively it may be asserted that locus of control of adolescent girl students was significantly influenced by their family climate. Since '*t*' test does not point to the exact source of difference, protected '*t*' was calculated for the said purpose. Table-2 exhibits comparison of means of locus of control by protected '*t*'.

Table-2 : Comparison of Means of Locus of Control by Protected 't'.

S. No.	Group	Mean	(1) HFC	(2) MFC	(3) LFC
(1)	HFC	6·467		(HFC − MFC = 4·766**	(HFC − LFC) = 6 533**
(2)	MFC	11·233			(MFC − LFC) = 1·767 NS
(3)	LFC	13·00			

Protected 't' = 1·884 at ·05 level, Protected 't' = 2 544 at ·01 level

**Significant at ·05 level

It may be seen in Table-2 that the difference in mean scores of locus of control of high family climate and medium family climate groups; and high family climate and low family climate groups was found to be significant at ·01 level of confidence.

Table-3 : Summary of Analysis of Variance in respect of Self-Esteem Scores

Source of Variation	*df*	Sum of Squares	Mean Squares	*F*-Ratio
Among the Means of Conditions	2	3655·09	1727·545	32·41**
With in Conditions	87	4645·90	53·63	
Total	89			

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(**Significant at ·01 Level)

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It may be gleaned from Table-3 that the obtained *F*-ratio (32·41) in respect of self-esteem of adolescent girl students belonging to high, medium and low family climate came out to be significant at ·01 level of confidence.

DISCUSSION

One finding of the study reveals that adolescent girl students belonging to high family climate seemed to be more internal than their counterparts belonging to medium and low family climate. This is supported by the study of Nowicki and Schneewind (1982) who found that external orientation was developed among children when family relationships were marked by a lack of harmony, and exhibited fighting, conflict and tensions. They also found that boys who were externals, perceived more tension in their homes. Halpin, Halpin and Whiddon's (1980) siudy also demonstrated that instrumental companianship, nurturance, principled discipline and achievement pressure were positively related to internal locus of control while punishment was negatively related to it.

Another finding indicates that adolescent girl students coming from high family climate appeared to possess higher level of self-esteem than their counterparts coming from medium and low family climate. This finding is also in line with the results obtained by several researchers (Coopers mith, 1967; Sears, 1970; Gecas, 1971; Bachman, 1982 Thomas and Sananda Raj, 1985; Gecas and Schwable, 1986).

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The Effects of Parental Behaviour on the Personality Development of Adolescents in Nigeria*

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The investigation was aimed at studying the effect of parental behaviour in adolescent personality development in Nigeria. A parental behaviour scale, an anxiety scale, and a personality adjustment inventory were used as the research tools to collect data from 350 adolescent boys and girls randomly drawn from secondary schools in different parts of Nigeria. The data was analysed by using the Chi-square test of significance. It was found that the male adolescents who had autocratic parents did not differ in their personality adjustment from those adolescents who had democratic parents, however the two contrasting groups differed significantly in their level of anxiety. In the case of female adolescents, it was found that those who were brought up in an autocratic home atmosphere differed significantly in personality adjustment as well as in level of anxiety from those who were reared in a democratic home

INTRODUCTION

All relationships are unique, but those existing between parents and child possess certain characteristics that explain the tremendous and permanent impact of one upon the other. It is found that all of the child's characteristics, his behaviour, his personality and his adjustment are the direct product of the behaviour, attitudes and personality of his parents. These three parent variables have great impact on the child's personality and adjustment.

* The data was collected by the author during his assignment with Jos University, Nigeria.

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Researchers studying parent-child relationship have attempted to investigate the effects on children of various parent characteristics especially the attitudes and behaviour of parents. This aspect of parent-child relationship has received increasing attention in the last decade. The two parent characteristics frequently reported by the researchers are acceptance versus rejection and autonomy versus control (Bandura and Walters, 1959; Becker et. al., 1959; Medinnus, 1961; Govind, 1983; Kareem, 1984 and Baumrind, 1971).

The nature of relationship between the parents and the child depends upon the culture to which they belong. The culture in which the child grows up defines both the methods and the content of socialization. Although there are some universal aspects of socialisation, culture differ widely in how permissive or restrictive they are with respect to making the child adopt culturally approved patterns of behaviour.

Since most of the researches on parent child relationship have been conducted in the West, it is difficult to generalise these findings to developing countries like Nigeria because of vast gap between the Western and Nigerian culture. The traditional structure of Nigerian society is hierarchical in nature and authoritarian in character. The hierarchical order of social relations puts a very high premium on values like obedience, devotion and submission to one's elders and to those who are higher in social status.

The fabric of social life in Nigeria is woven around two fundamental institutions, the tribe and the joint family. A joint family consists of three or four generations living together under the same roof. The joint family constitutes the centre of all activities of the individual, whose horizon becomes confined within the network of family relationships. The values of the joint family gradually become internalized in the emerging self of the growing child and constitute a basic traits of his personality.

The processes of educational, socio-economic and cultural transformations have largely broken down the joint family and with the old values like obedience and respect of one's elders are now not strictly adhered to. In the light of the above background that the investigator attempted to study the effect of parental behaviour and attitudes on the personality development and adjustment of adolescents in Nigerian society. In the present study, parental behaviour and attitude is the dependent variable, adjustment and anxiety, sex, and ordinal position constitute independent variables.

METHODOLOGY

Sample : The sample for the present study consisted of 350 higher secondary students from different schools. The schools were randomly selected from the different

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states of Nigeria. Using stratified random sampling techniques, boys and girls were selected from school records.

Instruments : A parental behaviour scale, an anxiety scale and a personality inventory were used. The parental behaviour scale was developed by Khan (1979) consists of 30 items. These items cover almost all the aspects of parent-child relationship Each item was rated on three points namely always, sometimes and never. The validity and reliability coefficients reported by the author were 0·45 and 0·87 respectively. The scoring of the scale was done by assigning arbitrary weight of 3, 2 and 1 to the three response categories. A high score on the test indicates autocratic behaviour while a low score shown democratic behaviour.

To measure anxiety, Taylor's Manifest Anxiety Scale and to study personality, Bell's Personality Adjustment Inventory were used.

Procedure : Subjects were collected in small groups at different schools, and the three questionnaires were administered, and the data was collected. The students were explained the purpose of the research and also how they should fill in the questionnaires. The subjects were able to complete the questionnaire within 20 minutes. The scoring of the entire sheets were done according to the scoring procedures mentioned in the manuals.

Analysis : A non-parametric test of significance and the Chi-square method was considered to be the most appropriate technique to analyse the data. The different high moderate and low categories and groups were computed by using quartile deviations, and the different frequencies were tabulated in a 2×3 contingency tables to compute the Chi-square values. The obtained value of Chi-square was tested against the tabulated value and the level of significance was determined.

RESULTS AND DISCUSSION

The Chi-square value indicated that there was significant difference between adolescent females whose parents were autocratic and those whose parents were democratic in their behaviour in their personality adjustment. Those female adolescents who had autocratic parents differed from those female whose parents were democratic in so far as personality was concerned. The results also showed that female subjects whose parents were democratic seemed to be better adjusted than those whose parents were autocratic.

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Table 1. Contingency table for personality adjustment of female adolescents whose parents were autocratic and democratic.

Variable	High Adjustment	Moderate Adjustment	Low Adjustment	Total
Autocratic parents	14 (17.1)	29 (32.2)	24 (17.6)	67
Democratic parents	20 (16.9)	35 (32.2)	11 (17.4)	66
Total	34	64	35	133

$\chi^2(2)=6.21$, p 0.05.

When compared the anxiety level of male adolescents whose parents were autocratic and those whose parents were democratic in their behaviour, it was found that the two groups differed significantly in their level of anxiety. The male subjects who had democratic parents experienced less anxiety while those adolescents whose parents were autocratic were found to have intense feelings of anxiety.

Table 2. Cotingency table for anxiety level of male adolescents whose parents were autocratic and democratic.

Variable	High Anxiety	Moderate Anxiety	Low Anxiety	Total
Autocratic parents	32 (24.5)	29 (32)	19 (23.5)	80
Democratic parents	17 (24.5)	35 (32)	28 23.5)	80
Total	49	64	47	160

$\chi^2(2)=6.86$, p 0.05.

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The Chi-square value showed that the female adolescents whose parents were autocratic and those whose parents were democratic differed significantly from each other in their level of anxiety.

Table 3. Contingency table for anxiety level of female adolescents whose parents were autocratic and democratic.

Variable	High Anxiety	Moderate Anxiety	Low Anxiety	Total
Autocratic parents	28 (19.1)	26 (32.2)	13 (15.6)	67
Democratic parents	10 (18.9)	38 (32.2)	18 (32.2)	66
Total	38	64	31	133

χ^2 (2)=11.44, p 0.01.

Female adolescents who had autocratic parents experienced more anxiety than those female whose parents were democratic. There was no sex differences in personality adjustment and anxiety level of adolescents who had autocratic parents and those whose parents were democratic in their behaviour.

The tradition oriented socities, like Nigeria, the parents are strict and rigid and are unwilling to condone the child for any deviation from culturally approved behaviour. The process of westernization has generated conflicts between the traditional values and the Western values in the various aspects of Nigerian social life. It is found that female adolescents whose parents were democratic in their behaviour appeared to be better adjusted than those who had autocratic parents. These findings appeared to be in agreement with the result of Lyle & Livilt, 1955; Harris, Gough & Martin, 1950; and Bronfeubrenner, 1961. The Western education helped the Nigerian parents to become democratic in their behaviour.

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It is observed that those adolescents whose parents were autocratic were found to be more anxious than those of who had democratic parents. In the case of female adolescents those whose parents were democratic were found to be less anxious than those females whose parents were autocratic in their behaviour. The findings are substantiated by the following investigators, Davidson, 1959; Jessor, 1977; Bachman, 1970; and Conger, 1977. It appears that Nigerian parents tend to be flexible and slightly tolerant towards their children. This explains the disence of difference in the personality adjustment of male and female adolescents and also slightly improved adjustment of females to their environment.

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STATUS OF INDIAN RESEARCHES IN CREATIVITY

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Teacher Effectiveness and Academic Achievement

Vibha Datta*

INTRODUCTION

Inspite of universal recognition of the importance of effective teaching relatively little progress has been made in defining the term "Effective teaching". Educational literature is replete with material attempting to describe effective teaching but the question, who is an effective teacher ?, still remains to be answered. Unfortunately no universally acceptable definitive explanation of "Effective teacher" can be given. In 1964 Biddle and Ellena accepted that no body knew who a competent teacher was.

"Probably no aspect of education has been discussed with greater frequency with as much deep concern, or by more educators and citizens, than has that of teacher effectiveness... how to define it, how to identify it, how to measure it, how to evaluate it and how to detect and remove obstacles to its achievement, .. findings about the competence of teachers are inconclusive and piece meal and little is presently known for certain about teacher excellence.

Henry Adams has remarked "A teacher affects eternity, he can never tell where his influence stopse". Ryans[2] opines that a teacher is effective to the extent he is able to develop basic skills, Understanding about the world around, work habits, desirable attitudes, value judgements and adequate personal adjustment of the pupils. This kind of operational-appearing definition is rather general and cannot easily be translated in terms of specific teacher behaviour.

To obtain capable/effective teachers is an intrinsic interest and obligation of education. Selection of competent teachers ensures substantially the attainment of desirable educational outcomes. Barr[3] is of the view that teacher effectiveness is a

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relationship between teachers, pupils and other persons concerned with the educational undertaking all affected limiting and facilitating aspects of the immediate situations.

Rammers observes, "..... effectiveness is a degree to which an agent produces affects." Since ancient times the glory of the teacher is believed to be reflected in terms of achievements of their pupils. The pupil-outcome criteria for judging teacher effectiveness has been the acid test ever since teaching assumed the status of a profession, If a pupil failed to show mastery of knowledge and skill it indeed indicated a failure of both or may be more of the teacher than that of the student. There is sufficient evidence to believe that teacher effectiveness is viewed more in terms of what happens to a learner than what a teacher does ? What is crucial is not the teacher's act or behaviour but the pupils act or behaviour. The creative artists like musicians, dancers proudly declare the identity of their 'Gurus'. In the academic field name of the university where the academecian has received his instruction is specifically mentioned. The worth of research work is evaluated by the reputation of the supervisor. The better known or more effective the teacher the more adopt the pupil is expected to be. Thus teacher effectiveness is viewed more in terms of what happens to a learner than what a teacher does.

According to the study reported by Sten, Stein and Bloom (1956) effectiveness is rather a standard of performance in a specific work situation that some individuals are said to manifest. Only that teacher is good/effective who has learned to use himself as an effective instrument for his own and society's purpose. Cortis regards that teacher effective who has been able to findout the appropriate situation in which he is best operative, since proper matching between personal and situational factors facilitate happy and effective teaching relations. The teaching effectiveness is evident from competencies involved with (1) teaching plans and materials, (2) class room procedures, (3) Inter personal skills and (4) learner's reinforcement-involvement reflected in teacher's behaviour.

Around 1984 Gupta and Kapoor have given a list of new situation/characteristics which help a teacher to be effective in a class. The catalogue is—(1) Instructional strategies (2) class room management (3) personal disposition, temperament and tendencies, (4) evaluation and feedback, (5) Interpersonal relations, (6) job involvement, (7) Initiative and enthusiasm (8) professional values and (9) innovativeness respectively in the everyday teaching learning situation.

There are two major bases related to the consideration of effective teaching first is the yardstick to measure teacher effectiveness. This varies with person to person and society to society and with value system and time. Second base is the age of the learner and the subject to be taught.

Teaching is complex and many sided, demanding a variety of human traits and abilities. Generally these may be grouped into two major categories—(i) those pertaining

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to teacher's mental abilities and skills, his understanding of psychological and educational principles and his knowledge of the subject to be taught and (2) those qualities of his personality—his interests, attitudes, belief, his behaviour in working relationships with pupils and others.

This paper is concerned only with bringing out relationship of academic achievement with teacher effectiveness. There are quite a few studies which do not show positive and significant correlation between the two variables e. g. reported by Erikson and Seagone. But there are also studies which show teacher effectiveness and academic excellence positively effectiveness and academic excellence positively related.

Most educators and parents do have some idea regarding effective teaching but their concepts are rather vague and far removed from specific observable behaviours of teachers. Their concept of effective teacher is directly dependent upon individual's percentage of marks in various examinations. In other words mastery over various academic courses leads to teacher effectiveness. Those related with teachers' training institutions believe good teaching to be a result of training received by academically well accomplished persons. In most of the teachers' training colleges for awarding marks in practice teaching examination or granting admission to this course academic achievement is given a lot of importance.

Welberg reports that high-school and college grades are indicative of scores in teachers' training examination marks. Ullman reported correlation of +·3 between academic marks and teaching. Positive co-relation was also reported by Fattu and Hawsam. Similarly Fuller, Carlile Downie and Bell positively co-relate the two factors. Ryans indicates *F* ratios significant at 0·05 level significant for self reported academic success and teacher effectiveness. He is of the opinion that highly significant relationship betweeu academic success in college and teacher effectiveness exists if self reports of academic success are to be trusted.

It has also been found out by Datta that students scoring high on intelligence tests or in public examinations are sight submissives-not assertive or want to come in the fore front in various social situations. Those who are active extroverts, give evidence of taking initiative should prove to be better teachers and they are ascendants. It was found that slightly submissions score high in percentage as well as in number as far as academic excellence is concerned.

Actually it is not only the academic excellence but the entire personality of a person that makes him an effective teacher Personality is diversely defined hence diagreement and ambiguity about teacher effectiveness is natural and cannot entirely be avoided. Ryans has rightly put that competent teaching is a relative matter.

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It has been observed and perhaps rightly so that teacher behaviour; hence expected to vary to some extent from one group of pupils to another. It must also be noted that teacher behaviour is a function of content, therefore different characteristics will make teachers successful in teaching different subjects.

Ryans has found *F* ratios significant at ·05 level of academic excellence of self reported outstanding students with regard to friendly, Understanding class room behaviour, responsible, business like class room behaviour, stimulating, imaginative class room behaviour, favourable attitude towards democratic school practices favourable attitude towards administrative and other school personnel, permissive child centered educational point of view and verbal understanding. He further points that mean score decreases in a fairly orderly fashion as the good students of average students and poor students are considered.

In the end it can be safely remark that without academic excellence one cannot be an effective teacher. On the other hand academic excellence is no guarantee for becoming an effective teacher. Academic superiority is only one pre requisite to be an effective teacher, A person needs unique compination of abilities, attitudes and skills to be effective as a teacher. Achievement of these desired abilities, attitudes and skills is easier for academically superiors because of their better gifts of mental attainments.

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A Comparative Study of Frustration in Daughters of Working and Non-working Mothers

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Study conducted in June 1989 in four randomly selected Govt. Model High Schools of Chandigarh on girls of IX and X classes showed a significant difference between the mean scores of frustration of daughters of working and non-working mothers. Further, with regards to reactions to frustration, maximum difference was found in the mean scores of aggression of the two groups.

INTRODUCTION

In today's dynamic world the stupendous increase in the employment of women could be due to sheer economic necessity or for their self-ex-pression and satisfaction etc. but it is a fact that the responsibilities of a working woman would far exceed than those of a non-working woman as she has to see to her domestic functions and also keep up her job and social commitments.

It has been found that carrying out almost single handedly all the duties and responsibilities of home overstrain a working woman and make her tired and irritable which in turn is liable to make her an unpleasant and unenjoyable companion for her children and husband. If this kind of companionship continues, it is bound to leave it's impact on young adolescents who are rather susceptible to emotional conflicts, modiness and tensions.

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So although mother's employment has advantages like increased income, yet it's negative effect can not be oversighted. Psychologists today are becoming increasingly curious about it's impact on the growth and personality make-up of adolescents. As a result of these factors, the researchers were motivated to study the level of frustration among daughters of working and non-working mothers with the following specific objectives :

(1) To assess the level of frustration among daughters of working and non-working mothers.

(2) To determine the difference with regards to reactions to frustration between daughters of working and non-working mothers.

METHODOLOGY

The study was conducted in IX and X classes of four randomly selected Govt. Model High Schools in Chandigarh. The selected Govt. Model High Schools were those located in Sectors – 19, 20, 16, 10 respectively. A sample of 25 daughters of working mothers and 25 of non-working mothers was selected randomly from each school. Thus, the total sample consisted of 200 girls.

Conduction of the study took place in two phases. In the first phase rapport was established with subjects of each school by frequent visits and the general information about all the subjects was also collected.

In the second phase, the standardized frustration scale developed by Chauhan, N. S. and Tiwari, G. P. (1972) was administered for measuring the frustration level of the subjects. The frustration scale had forty eight items, out of which each of the four modes of frustration (regression, fixation, resignation, and agression) had ten items. Each item had five answers graded on a five-point scale on the positive dimension and a zero point on the negative dimension. Therefore, scores ranging from five to zero were given for each item according to the choice of answer. Maximum marks obtained could be fifty and minimum as zero.

RESULTS AND DISCUSSION

Data in Table 1 reveal the mean, standard deviation and standard error of mean of scores of frustration and it's reactions of daughters of working and non-working mothers. Table-1 indicates higher mean frustration scores in case of daughters of working mothers ($\bar{X}=113{\cdot}93$) than that of daughters of non-working mothers ($\bar{X}=96\ 45$).

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Table-1 : Mean, S. D. and S. E. M. of frustration and it's reactions of daughters of working and non-working mothers.

S. No.	Variable	Mean, S. D. and S. E M.	Daughters of working mothers	Daughters of non-working mothers
1.	Regression	Mean	32·09	28·11
		S. D.	5·63	7·14
		S. E. M.	0 563	0·714
2.	Fixation	Mean	28 82	24·24
		S. D.	5·88	5·42
		S. E M	0 588	0·542
3.	Resignation	Mean	23·06	19·48
		S. D.	6·52	6·11
		S. E. M.	0·652	0 611
4.	Aggression	Mean	30·05	24·72
		S. D.	6·99	5·85
		S E. M.	0·699	0·585
5.	Total Frustration Score	Mean	113 93	96·45
		S D.	18·06	19·33
		S. E. M.	1·806	1·933

With regards to reactions to frustration, maximum difference was found in the mean scores of aggression. It was 30 05 in case of daughters of working mothers and 24 72 in case of daughters of non-working mothers. The deviation from the mean scores was not much in case of all the reactions but was maximum in case of the total frustration scores of all the subjects. Standard error of mean was not much in all the cases.

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Figure I and II (a-d) show the graphic representation of frustration and it's reactions scores of daughters of working and non-working mothers with frequency distribution of students on 'y'-axis and scores on 'x'-axis. The trend being in favour of daughters of working mothers who exhibit more frustration as compared to daughters of non-working mothers.

Table-2 : 'z' values for mean scores of frustration and it's reactions of daughters of working and non-working mothers.

S. No.	Variable	Daughters of	Mean	Calculated 'z' value	Level of Significance
1.	Regression	working mothers	32.09	4.37**	0.01
		non-working mothers	28.11		
2.	Fixation	working mothers	28.82	5.74**	0.01
		non-working mothers	24.24		
3.	Resignation	working mothers	23.06	4.02**	0.01
		non-working mothers	19.48		
4.	Aggression	working mothers	30.05	6.03**	0.01
		non-working mothers	24.72		
5.	Total Frustration Scores	working mothers	113.93	6.64**	0.01
		non-working mothers	96.45		

**Significant at 0.01 level.

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Table 2 shows the 'z' values for mean scores of frustration and it's reactions of daughters of working and non-working mothers. It shows that there was a significant difference in the mean scores of reactions to frustration i e. regression, fixation, resignation and aggression between daughters of working and non-working mothers ($z=4.37^{**}$, $z=5.74^{**}$, $z=4.02^{**}$, $z=6.03^{**}$) at 0.01 level. The difference of means between the total frustration scores of daughters of working and non-working mothers was also found to be highly significant ($z=6.64^{*}$)* at 0.01 level. Thus, it can be concluded that daughters of working mothers experience a higher level of frustration as compared to daughters of non-working mothers. This finding has the support of Patel (1972), Rao (1973) and Anderson and Kulman 1986) who concluded that though the mother's employment satisfied the material needs of children, it created various other problems especially in case of adolescent girls.

The first possible reason for such findings could be that the mother who is working loses a lot of valuable time due to employment which otherwise she would have devoted to her children. Further, due to stupendous growth sputt during adolescence, girls especially tendto face more anxiety and frustration (Tiwari *et al.*, 1980).

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Gender Difference in Organizational Stress of Executives : Substance Plus Style

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The study examined the organizational stress of executives of two gender groups (male/female). As individuals male executives and female executives seem to be virtually indentical psychologically, intellectually and emotionally. But the similarity ends here. Women in executives ranks in most of the organizations are expected to deal with the dual roles as executive women in business and in society as a whole. To be successful in upper management, women executives must constantly moniter their behavior, making sure they are neither too masculine nor too feminine. The hoops held out for women in or aspiring to executive jobs are often paired up, requiring seemingly contradictory types of behaviour at the same time. The trick is to pass through only the overlapping portion of each pair of hoops.

The narrow band of accepted characteristics and action reflects the multiple expectations of female executives and the challenge they face of blending very disparate qualities It is clear that much behavioral territory is off-limits to executive women. Only certain characteristics traditionally accepted as "masculine" and some traditi onally thought of as "feminine" are permitted through the narrow band. The present study consists of two levels of executives cadre (female/male executive) where n=60. In the conclusion of the present study we have identified four contradictory sets of expectations that executive women must reconcile to succeed in an organization.

a. Take risks, but be consistently, outstanding,

b. Be tough, but don't be macho,

c, Be ambitious, but don't expect equal treatment,

d. Take responsibility but follow other's advice.

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INTRODUCTION

In any modern industry both the type of workers, male and females are found and both may have different degree of stress depending upon the need for undertaking jobs and also for several other causes. As individuals executive women and men seem to be virtually identical psychologically intellectually and emotionally. But the similarily ends here. Women in executive ranks or even middle management in most large organizations, confront two sets of demanding, sometimes contradictory expectations that reflect the dual role, they play as women in business and in society as a whole. Ann M. Morrison, P. W. Randall and Ellen Van Velsor (1988). Over the recent years, it has been argued that the abilities and attitudes of male executives are very different from those of female executives. In any modern organization women are also expected to be extremely competent, often more competent than man in various arenas. Those who were given an opportunity to fill a high level position were expected to put the job first, family second (if at all). Being assigned the same responsibilities or the same title as men did not mean that women received equal treatment in other respects. The salary surveys done over the past several years consistently show that women are still paid less than men at their level. Even when salaries are the same, women are given smaller budgets than man in similar jobs which lead to more stress among the female workers.

METHODS

The subjects in this study included two levels of executive cadre (Female executives and male executives) where ($n=60$). The stress measurement questionnaire was administered on the 30 female executives and 30 male executives individually.

Measures : Stress Measurement Questionnaire developed by Dr. Shailendra Singh (1986) was administered on 60 executives of either gender (30 female executives/30 male executives).

RESULTS AND DISCUSSION

'*t*' test was applied to find the significance of difference between the organizational stress of male and female executives.

Table-1

Executive Cadre	Mean	S.D.	'*t*' value
Female Executive	169·35	4·06	=12·35**
Male Executive	161·36	5·15	

** $P<\cdot01$

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As shown in the figure the female executives had higher level of organizational stress in comparison to the male executives as indicated by the difference in mean and high significance of difference was seen in the level of stress experienced by them as indicated by the '*t*' test.

It was also found in the present investigation that the stress faced by the women executives in an organization is comparatively more than that of the men in the executive cadre. It has been found that job stress of the women executives was more "catch-all" for all those exchanges between her life outside organizations and life, inside the organizations that puts pressure on the women executives—the family problems (Pahl and Pahl, 1971), life crises (Dohrenurend and Dohrenuend, 1974) conflict of the personal beliefs with those of the company, of company with family demands increase the stress level of the women executives. Similar study was reported by Morrison, Write and Velson (1988). They reported that women and men in comparable managerial role have more similarities than differences across gender, even then it was found that women executives had to face more stress and role conflict which leads to low job satisfaction.

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Disciplinewise Comparison on Computerized Entrance Test

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The paper intends to study the achievement of Arts and Science graduates on computer based entrance test through computers by taking Pre—B. Ed. entrance test scores as covariate. Secondly it intends to compare the achievement of Maths and Non-maths graduates on computer education by taking Pre—B. Ed. entrance test scores as covariate. The study reveals that Science group scored significantly higher than Arts group in computer entrance test when Pre—B. Ed. entrance test was eonsidered as covariate and Maths and Non-maths groups did not differ significantly on achievement in computer education when Pre—B. Ed. entrancc test was considered as covariate.

INTRODUCTION

Entrance test is a very common feature of any institution. Every human being has different aptitude, talent, intellect as a good gift by birth. Every institutions bave to select candidates from the society according to its need, so that there would be no difficulty with the candidates in acquiring the skills of an institution and the product of the institutions would be superior which can help a lot in building the nation because the aim of an institute is to give proper direction to the talented youth for the betterment of the society.

Different courses need different aptitude. Every human being take birth with some inborn qualities and these qualities differ from individual to individual. It is the responsibility of an institutions to provide better opportunities to all talented youth according to their inborn qualities for their proper development. In the field of computer, it needs logical reasoning, general awareness, arithmetic, numerical, and language ability etc. Perhaps it requires more of logical reasoning along-with other oompetencies. The aim of SOE is to select suitable candidates which can cope with all the above discribed abilities.

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The problem of selection can be tackled if a computer based question bank is developed in the above area. Selection of items, administration of test, scoring, and result declaration all can be done automatically through computer based question bank entrance test.

Does the performance of Science and Arts differ on the entrance test conducted through computer ? Does the performance of Maths and Non-maths differ ? What are the predictors of students' performance in computer course for which they were selected through entrance test ? These are some of the worth exploring questions. To get answers of these questions the present study wos undertaken.

Objectives : (i) To compare the achievement of Arts and Science graduates on computer based entrance test through computers by taking Pre-B. Ed. Entrance Test scores as covariate.

(ii) To compare the achievement of Maths and Non-maths Graduates on computer education by taking Pre-B. Ed. Entrance Test scores as covariate.

Hypotheses : 1. The adjusted mean achievement scores on computer based entrance test of Science students will not differ significantly from those of Art students when Pre-B. Ed. entrance test scores are taken as covariate.

2. The adjusted mean achievement scores as computer education test of maths students will not differ significantly from those of non-maths students when Pre--B Ed. entrance test scores are taken as covariate.

Sample : One hundred and twenty students were enrolled in B,Ed. (1989 – 90) in School of Education, DAVV, Indore. These students were selected on the basis Pre– B.Ed. entrance test conducted by the VPP Mandal, Bhopal. There are 20 seats available for computer education, where as, 60 students out of 120 wanted to opt for computer education, These students were Art and Science graduates. The sample for the study constituted of 60 students.

Tools : A computer based question bank was developed by the investigators. Objective type items, such as, multiple choice, matching, fill in the blank, etc. were developed related to areas, such as, logical reasoning, arithmetic ability, numeric ability, language ability, and general awareness. The total number of items developed was 150. Out of 150, the highest number of questions was related to logical reasoning, next in the order was arithmetic ability followed by numeric ability, language ability, and general awareness. In the software a provision was made to pick up 60 items at random, so, as, to constitute a test.

PROCEDURE FOR DATA COLLECTION

All the 60 students were divided into 6 groups. Each group comprised of 10 students. Instructions were given to the candidates by the investigator on computer

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regarding how to interact with the computer based entrance test package while appearing the test. An already loaded question bank software was run by the candidates. Each candidate entered Roll no., and Name. After this 60 items were selected at random out of the 150 questions by the computer itself, and the question numbers were to be attempted within 60 minutes. Then the first question appeared on the screen. The student answered the question, and just after the question was answered the score obtained was displayed on the Video Display Unit. After the response was entered, the computer waited for the confirmation of the response by giving one more chance to the candidate if required. Then even if the return key was pressed more than once the progressive questions were not passed and only next question appeared on the screen. Different students attempted a different set of 60 parallel questions. After the students completed the tests their Roll No , Name, itemwise marks, total, and total time taken were stored in a seqnential data file, automatically. Through a computer program the marks stored in the data file were printed in descending order alongwith the identifiers of the candidates, viz , Roll No , and Name. The candidates were asked to express their feelings about the entrance test through the use of a computer, in a note book The scores obtained in the Pre– B.Ed entrance test, and computer education course were collected from the office records.

RESULTS

Comparison of Achievement of Arts and Science on Computerized Entrance Test

Another objective was to compare the achievement of Art and Science graduates on computer based entrance Test by taking Pre– B Ed. entrance test scores as covariate. The data related to this objective were analyzed with the help of ANCOVA. The results are given in Table 1.

Table-1 : Summary of the ANCOVA for achievement on computer based entrance test of Art and Science students by taking Pre—B. Ed. entrance test scores as covariate.

Source of variance	*df*	*SSy.x*	*MSSy.X*	*Fy.X*
Among	1	941·25	941·25	15·87**
Within	57	3381·26	59·32	
Total	58	4327·50		

**Significant at ·01 level.

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The adjusted F value of 15·87 is significant at 0·01 level with $df = 1/57$ (Table 1). It reflects that the adjusted mean achievement on computer entrance test or science students differed significantly from that of arts students when Pre—B. Ed. entrance test was considered as covariate. This means that the discipline to which a student belongs is likely to influence his performance on the light of this null hypothesis that the adjusted mean achievement scores on computer based entrance test of science students will not differ significantly form those of arts students when Pre—B. Ed. entrance test scores were taken as covariate is rejected. Further the adjusted mean achievement score on computer entrance test of science students was 25·58, which was significantly higher than those of arts whose adjusted mean achievement score on computer entrance test was 17·21. It may, therefore, be said that the science students are likely to perform significantly superior to art students when Pre—B. Ed. entrance test was considered as a covariate.

Comparison of Achievement of Maths and Non-Maths on Computerized Entrance Test : Last objective was to compare the achievement of maths and non maths on computer education test by taking Pre-B. Ed. entrance test scores as covariate. The data were analyzed with the help of ANCOVA. The results are given in Table 3.

Table-2 : Summary of ANCOVA for achievement of maths and non maths on computer education test by taking Pre B. Ed. entrance test as covariate.

Source of variance	*df*	*SSy.x*	*MSSy.x*	*Fy x*
Among	1	1·538	1·54	·029
Within	17	916·27	53·89	
Total	18	917 82		

It is evident from Table 2 that the adjusted F-value of 0·029 is not significant. It reflects that the adjusted mean achievement (86·03) of math students does not differ significantly from non-math students (85·36) when Pre—B. Ed. entrance test was taken as covariate. Thus the null hypothesis, viz , the adjusted mean achievement of Maths would not differ significantly from those of Non-maths when Pre—B. Ed. entrance test scores were taken as covariate is not rejected. Thus the knowledge and competency in mathematics were not found to influence the achievement in computer education test. It may, therefore, be said that knowledge of computer can be obtained equally well by those students who had studied mathematics at graduate level and those who did not study mathematics at graduate level. Hence mathematics knowledge is not a must to the understanding of computer education.

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DISCUSSION

Science makes one systematic in his approach. A student of Science explores relationships, and interprets the linear relationships in terms of theories of properties. The power of analysis, synthesis, problem solving etc. Are better developed in Science students than Art students. All these capabilities might be closely associated with those assessed through computer entrance test. It may be due to such causes that the Science students might have performed on the computer entrance test better than the Art students.

Mathematics is a discipline which develops numeric ability, reasoning ability; etc, Computer Education, where, more focus is on Computer Aided Instruction, Computer Based Education Management, Computer Based Evaluation Data Processing, and Office Automation, etc., does not require the knowledge of higher maths. Almost all the students of computer education course were from science discipline. Science discipline might have developed power of reasoning, analysis, problem solving, etc. to the same extent among both the mathematics as well as non-mathematics students. Due to this both the groups might have performed equally well in computer education course. Hence, no significant difference was observed in the performance of both the groups in computer based entrance test.

Findings : 1 Science group scored significantly higher than art group in computer entrance test when Pre-B Ed. entrance test was considered as covariate.

2. Maths and non-maths groups did not differ significantly on achievement in computer education when Pre-B. Ed. entrance test was considered as covariate.

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1 INDIAN PSYCHOLOGICAL REVIEW (*Vol.* 37—38, *No.* 1-12, 1991)

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Developments of Scale for the Measurement of Child Rearing Methods Adopted by Mothers

[1]Mrs. O. R. Radhakrishna
[2]Dr. (Mrs) S. P. Rahgir

The paper presents the findings pertaining to the developments of an attitude scale in Telugu based on Shoben's parental attitude survey. This test was conducted on 200 mother of IX and X class adolescent's selected from Hyderabad Government High Schools (Telugu medium) The scale containing 3 sub scales i.e., possession, Domination and Ignoring and each scale contains 10 items. Responses on each item have elicited on 5 point scale.

INTRODUCTION

Child rearing methods vary from culture to culture and which has a definite impact on the personality development of children. The child rearing methods adopted by parents help children to change from biological aspect to social aspect of development. When compared to the role of both the parents mothers play a dynamic role in upbringing of their children, major factors being femaleness maternity and care giving. The mothers rearing methods help the child to satisfy the social and emotional needs which are in hormony with the major social values of the culture to which she belongs. Mothers are varied in their rearing methods and frequently unpredictable and are often tinged with odd combination of tradition, emotional regard personal and structural factors. Whatever the reason may be parent's child rearing practices do have an impact on outcome—that is, on their children's emotional and social development. Different authors studied different methods of chlld rearing. Among them, three classic studies of child rearing are—one from the early 1940s by A—L Buldwin and his associates (Buldwin, Kalhorn and Breese

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1945) the other from the 1960 by Diana Bumrind (1967, 1971, 1973) and the Sohben's Parental attitude survey (1949) gave different conclusions about how children are affected by parenting styles specially the effect of close control. Different scales are available in English and some in Hindi language, but the respondents who were well versed in their mother tongue namely Telugu could not be expected to understand the meaning and spirit of English/Hindi sentences and phrases constituting the items of the scale. As such the need is felt to develop a scale in Telugu regional language of Andhra Pradesh. Based on Shoben's Parental Attitude Survey (PAS 1949) shortened by Drews and Teahen (1957) a scale was developed in Telugu, to measure the child rearing methods adopted by mothers.

The scale contains 3 sub scale, that is (1) Possession, (2) Domination and (3) Ignoring and each sub scale contains 10 items. Responses on each item have elicited on 5 point scale that is strongly agrees on one end and strongly disagree on the other end. Out of 30 items the items have negative value, 16 items have positive values. Maximum score was 5 and minimum was 1.

Accordingly, the items of PAS were translated in simple Telugu language. Care was taken to ensure that translation did not disturb the original content and purpose of the items. The translation of Telugu version along with it's original English version was given to both language and subject experts for checking up the language and suggesting necessary modifications. The modified Telugu version of the scale was tried on a few members for assessing intelligibility of the scale. Informal interviews were also conducted to obtain their frank opinion about the items with the sub-scale.

In order to assess the internal consistency of the translated version of the scale, the test-retest method was employed. The responses on each item (D, P and I scales) have been elicited from a group of 100 respondents drawn at random. The responses were then rearranged in an array based on total scores obtained by each respondent. From the array, the 50 per cent of the respondents with higher scores and the remaining 50 per cent of the respondents with lower scores were identified for the valuation of each individual statement. This method was done to guard against the possibility of obtaining persons with high scores who had simply agreed or disagreed with all statements (response bias). In order to find out the reliability of the scale test, retest method was used by collecting the date based on item responses at first visit and second visit after 40 days. The correlation computed for assessing the reliability of the scale developed was 0·63 which is positive and significant at one per cent level. Thus the scale is considered to be a reliable one to measure the attitudes of parents towards their children.

Implications : The present scale holds a wide range of practicable applicability by Home Scientists, Psychologists, Socialigists and Political Scientists in Andhra Pradesh and other states where Telugu language is used.

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It has 3 sub scales which is more precise and has accurate, measurement of efficacy, child rearing methods adopted by parents have a significant effect on the personality development of children. As such through evaluation, it becomes easy to educate the mothers to adopt positive attitude towards their children, which helps for the healthy personality development of our national assets.

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Identification of problems of Geography teachers and students of Arunachal Pradesh

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Geography is a popular discipline in the State of Arunachal Pradesh from Upper Primary to College levels. The schools of Arunachal Pradesh are affiliated to C.B.S E., New Delhi. The syllabus prescribed by C.B S E. is quite rich and having advanced concepts of the discipline. Almost all the concepts of Modern Geography are found in Upper Primary, Secondary and Higher Secondary classes The present study is an attempt to identify the problems faced by the geography teachers while teaching the C.B S E. course of Geography in the schools of Arunachal Pradesh and certain difficulties faced by the students in the learning of Geography.

INTRODUCTION

Geography has an important place in the school work in almost all the states of India now-a-days. Earlier geography was considered merely an informational subject of memorizing the facts, names of rivers, mountains, cities, countries etc. But, C.B.S.E., New Delhi has developed an innovative geography course which contains different components of the modern geography like : attention to student comprehension of the structure of the subject rather than the knowledge of isolated facts, problems solving activities, involvement of learners, study of earth in relation to man's activities, dealing with recent findings of research within the domain of the discipline and of related fields such as ecology, urban planning, human geography etc. Moreover the geography course has been prepared by keeping in view the modern strategies of teaching as laboratory work, group work, games, map drawing work and processing of informations. The geography teachers and students of Arunachal Pradesh are not fully aware of the modern

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aspect of geography discipline. The teachers are not trained in modern methods of teaching and hardly they are facilitated as per the requirement of geographical content to be taught. Hence, the geography teachers are continueing the old system of teaching and facing a large number of problems in their work. Therefore, the investigator has taken this study in hand for finding out the problems of teachers and students in the teaching and learning of geographical content respectively.

Objectives of the Study : The following were the objectives of the present study :

(i) To identify the problems faced by the teachers of Arunachal Pradesh in teaching of geography at the school stage. (ii) To identify the problems faced by the students of Arunachal Pradesh in learning of geography at the school stage.

Delimitations of the Study : The study was delimited to :

(i) Upper primary and secondary stage students and teachers. (ii) The districts of Lower Subansiri and Changlang.

Tools Used : The investigator was to explore the problems of teachers and students in the teaching and learning of geography respectively. Hence the investigator prepared two questionnaires for identifying the problems. The questionnaire—I was developed for knowing the problems of geography teachers. The questionnaire which is meant for geography teachers contains 23 items concerning to some physical facilities and academic aspects. The questionnaire-II was developed for knowing the problems of students in learning of geography. It contains 22 items concerning to the participation of students in discussion, shortage of teachers, text-books, reference material, teaching aids field work etc. These two questionnaires were used for identifying the problems faced by the teachers and students in the teaching and learning of geography at the school stage of Arunachal Pradesh.

Sampling : The investigator selected a sample of 20 teachers and 300 students by making use to random sampling technique. The sample was drawn from the four schools of Lower Subansiri and Changlang Districts of Arunachal Pradesh. The sample covers the Govt. Secondary School, Hija, Govt. upper Primary School Bulla and Tajang which are situated in the Lower Subansiri district of Arunachal Pradesh. The Govt. Higher Secondary school, Changlang is situated in Changlang district. The teachers and students of secondary classes of Govt. Higher Secondary school, Changlang were included in the sample.

PROCEDURE

The data were collected by administering the two questionnaires which were developed by the investigator. Secondly, a new number of geography teachers and students were interviewed and the cited problems were noted down. Thirdly, the investigator observed certain things in the schools by himself like library, geography room etc. Fourthly, the investigator worked as P.G.T. in geography for five years in the schools of Arunachal Pradesh, so, the problems experienced by him, have also been included in the

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present study. After this the questionnaires attempted by the geography teachers and students were studied analytically. The problems projected by the teachers and students in questionnaires and interviews were sorted out. Lastly, two tables were prepared. Table-I reveals the problems faced by geography teachers in the schools while teaching geography. Table-II reflects the problems faced by the students in the learning of geography. The two tables are put as under :

Table-I : Problems and Percentage of Teachers.

Sl. No.	Problems	Percentage of Teachers
1.	Geography Room	99%
2.	Teaching Aids	82%
3.	Text-Book	75%
4.	Teaching objectives	81%
5.	Methodology	65%
6.	Instructional Material on Local Geography	77%
7.	Filled Work	84%
8.	Evaluation	6 %

Table-II : Problems and percentage of students.

Sl. No.	Problems	Percentage of students
1.	Shortage of Geography Teachers	73%
2.	Lack of Reference maternal	85%
3.	Lacking in skill of using maps, globes, Atlas	68%
4.	No scope of field work	77%
5.	Geography Room	96%
6.	Geographical Excursion	90%

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INTERPRETATION

The geography teachers are facing a number of problems in the teaching of Geography as reflected in Table-I. Geography room is not available in any of the schools because of which the geography teachers are not in a position to teach affectively. Teachers are to carry different maps and other teaching aids from one class room to another class room. Secondly, 82 percent teachers have shown in Table-I that the schools do not have the required teaching aids for the teaching of Geography. The effective teaching of Geography become difficult in the absence of maps, globes, atlas, models etc. Thirdly, a large number of teachers (75%) have revealed that the text-books are having complicated language and precised content. So, the teachers are facing the problem in understanding the geographical content and they need some illustrative material for teaching. Fourthly, the teachers are following traditional method of teaching in which instructional objective are not cared at all. That is why the instructions are not imparted systematically and intensively. Moreover, geography teachers are not aware of the new techniques of teaching like activity approach, bloom's mastery learning strategy, PSI etc. Therefore, geography teachers are unable to do the justice with their teaching work in Geography. The Table-I shows that 66 percent geography teachers do not know the techniques of evaluation where as evaluation is the integral part of teaching. Local Geography plays an important role in making the geography teaching very interesting and effective. But 77 percent teacher revealed that they do not have instructional material on local Geography which can be incornorated for better understanding of the geographical content. Lastly, the 84 percent teachers have projected that they are unable to take the geography students for field work because of the heavy work load and very tight type of time table. In this way, these are some of the problems which are being faced by the geography teachers in some upper primary and Secondary schools of Arunachal Pradesh while teaching Geography.

The table—II gives us an idea that the students are also facing some difficulties in the learning of Geography. The shortage of geography teachers is the main aspect due to which the students are troubled. Sometimes the teachers who have never studied Geography as a discipline and they are to teach Geography because the concerned teachers are not available. Secondly, the 80 percent students have shown that there is no library facilities in the schools where from they can have some enriched required geographical content. Since schools do not have geography room or laboratory, hence it was projected that the students don't have any chance to develope the skills of map reading, drawing, and making use of other geographical instruments. The majority of the students revealed that there is no scope for field work and geographical excursion which are certainly hinderances in the learning of Geography. Finally, looking into these results it is clear that the geography, teachers and students are passing through some troubles in the teaching and learning of Geography in some schools of Arunachal Pradesh.

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Teaching Aptitude and Successful Teachers : a Co-Relational Study

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INTRODUCTION

The universal focal importance of teacher is not new to the educational thinking. Kothari Commission (1964-66) has emphasized the role of teachers in shaping the future of nation. It has been accepted in the report that. "The future of India is being shaped in the classroom". It shows the importance of the role of the teachers that is being played in reshaping the country. The quality of the nation is judged by the quality of its citizens; but the citizens are mostly determined by the educational system in the nation. It is unanimously agreed that the strength of any educational system in any country largely depends, upon the qualities of it's teachers. The success of the teachers mostly depends on some behavioural aspects i.e , aptitude (Mutha 1980; Singh 1987), attitude (Arora 1978; Mann 1980). Value pattern (Kaul 1972; Kumar 1985), intelligence (Lowell 1951; Mutha 1980). Self-concept (Gupta 1975; Sharma 1978 Personality characteristics (Symond 1954; Mann 1980), Traits (Witty 1948; Barr 1948: Mennon 1949; Adaval 1952), abilities and interests of the teachers.

Teaching aptitude is an important aspect of determining the competence of the teacher. It is a combination of characteristics indicative of teacher's capacity to acquire some specific skills and abilities of teaching. Sharma (1971) indicated in his study that teaching aptitude was found as a sound predictor of teaching success. Mutha (1980) found that effective teachers had significantly higher scores on teaching aptitude than the ineffective teachers Singh (1987) found significant (at 0.01 level of confidence) correlation, between teaching effectiveness and teaching aptitude of B.Ed. pupil teachers. Vyas (1982), found that there was no significant relationship between teaching effectiveness and teaching aptitude. In the same study, the investigator further revealed that in case of female teacher trainees, there was a positive relationship between teaching aptitude and teaching success, as measured by supervisory rating. But when the teaching success rssessed by teachers self rating scale, no signsficant relationship was found between teaching aptitude and teaching success of both male and female teacher trainees.

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Adaval (1952) stated that the female teacher trainees had greater aptitude for teaching than the male teacher trainees. Thakkar (1977) reviewed the researcher conducted by the researchers on teachers behaviour and concluded that female teachers had greater aptitude for teaching than male teachers. Mutha (1980), indicated that the teachers who scored high scores on teaching aptitude test, also got high values on intelligence test. Vyas (1982) found significant correlation between teaching aptitude and academic achievements.

Thus according to the researches reviewed above, it is clear that teaching aptitude is a significant, predictor of successful teaching. But, so far only few attempts have been made by the researchers, on this important aspect of teacher behaviour. Mostly studies have been conducted on teacher trainees and no study has emphasized the clear impact of locality and sex on teaching aptitude of successful teachers. Therefore, it points to the need of further investigation on this important aspect.

In the present study an attempt has been made to find out the relationship between teaching aptitude and successful teaching in relation to sex and locality of secondary school teachers in Bareilly district in Uttar Pradesh.

Objectives of the Study : The principal objectives undertaken in the present study are :

1. To verify how far the teaching aptitude determines the success of teaching.
2. To study the teaching aptitude of successful and unsuccessful teachers in relation to sex.
3. To compare the teaching aptitude of successful and unsuccessful teachers, in relation to locality.

Hypotheses : 1. There is no significant difference between successful and unsuccessful teachers in respect to different dimensions of teaching aptitudes.

2. Statistically, there is no significant difference between male/female, rural/Urban, successful and unsuccessful teachers in respect to their teaching aptitude.

METHODOLOGY

(a) *Sample* : In present study multistage stratified random sampling technique was used. At the first stage, out of 89 secondary schools of Bareilly district, 20 schools 9 urban & 11 rural) were chosen randomly, at the second stage 200 teachers (100 urban and 100 rural) were selected randomly from the selected urban & rural schools. In relation to sex, the quite representation of both kinds of teachers i.e., male & female, were taken into consideration. For the purpose of student rating of teaching competence, 800 students (4 students/per teacher) were also selected from the sampled schools.

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(b) *Tools* : The teacher efficiency scale standardized by Chauhan and Jain (1976). and teaching aptitude scale prepared by Jaiprakash Srivastava (1973) were used in the present study.

(c) *Procedure* : Initially A and B part of teaching efficiency scale distributed among selected students and (c) part of the same scale was given to the teachers. They were requested to give answer of all questions. After the gap of one day, teaching aptitude test was given to the teachers, for collecting data, related to the teaching aptitude of selected teachers. The manuals were followed for the purpose of scoring. On teaching efficiency scale, the teachers who obtained scores above median point, considered as successful and who got scores below median point considered as unsuccessful teachers.

RESULTS AND DISCUSSION

It is obvious from table-1, that the mean scores of successful teachers on cooperative attitude, wide interest, fairness and scholary taste were found significantly higher (t=3·49, 4·84, 9·39 and 3·75, $p<0.01$) than unsuccessful female teachers, while on patience dimension of teaching aptitude, the successful female teachers scored high mean

Table-1. Teaching Aptitude Scores of Successful and Unsuccessful Female Teachers.

Dimensions of Teaching Aptitude	S. F. Teachers (N=48)		USF Teachers (N=47)		Obtained t value (df=93)
	Mean	SD	Mean	SD	
Cooperative attitude	19·26	5·92	14·69	6·94	3·46**
Kindness	18·26	5·94	15·69	6·90	1·94
Patience	12·78	2·20	11·60	2·50	2·43**
Wide Interest	20·74	8·90	13·20	6·00	4·84**
Fairness	33·68	4·43	18·87	8·72	9·39**
Moral Character	20·74	6·17	19·30	8·05	0·97
Discipline	16·32	6·00	15·54	6·38	0·56
Optimism	15·45	6·87	15·30	6·96	0·10
Scholary Taste	18·97	8·00	13·10	6·62	3·72**
Enthusiasm	21·70	5·70	20·40	8·10	0·90

*=Significant at 0·05 level of significance ;
**=Significant at 0·01 level of significance.
SF=Successful ; USF=Unsuccessful.

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value (significant at ·05 level of confidence) than unsuccessful female teachers. The same table also indicates that there was no significant difference between successful and unsuccessful female teachers on kindness, moral character, discipline, optimism and enthusiasm dimension of teaching aptitude.

Table 2. Teaching Aptitude Scores of Successful and Unsuccessful Male Teachers.

Dimensions of Teaching Aptitude	SF Teachers (N=50)		USF Teachers, N=55		Obtained value
	Mean	SD	Mean	SD	df=93
Cooperative attitude	14·80	5·78	9·27	4·18	5·56**
Kindness	17·35	5·14	12·20	6·96	3·65**
Patience	7·04	4·86	12·37	4·08	6·05**
Wide Interest	24·17	8·76	13·97	5·86	6·94**
Fairness	29·77	7·79	24·26	8·73	3·41**
Moral Character	20·98	7·64	18·90	5·88	1·55
Discipline	15·54	5·21	14·26	3 81	1·42
Optimism	17·20	8·16	16 03	6·36	0 81
Scholary Taste	20·23	8·26	13·83	7·12	4·52**
Enthusiasm	24 92	11·81	13·08	8·11	1·80

*=Significant at 0 05 level of significance.

**=Significant at 0·01 level of significance.

SF=Successful, USF=Unsuccessful.

The data present in table – 2 indicates that, the four dimensions of teaching aptitude, i.e., moral character, discipline, optimism and enthusiasm, have no significant difference in relation to successful and unsuccessful male teachers. While there exist significant variation (at 0·01 level) on cooperative attitude, kindness, patience, wide interest, fairness and scholary taste of both successful and unsuccessful groups of male teachers.

The examination of table – 3 indicates that the successful and unsuccessful rural teachers have scored similar scores on moral character, discipline and optimism dimension

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Table 3. Teaching Aptitude Scores of Successful and Unsuccessful Rural Teachers.

Dimensions of Teaching Aptitude	SF Teachers Mean	N=53 SD	USF Teachers Mean	N=47 SD	Obtained *t* value *df*=98
Cooperative attitude	15·50	5·25	10·46	4·50	5·16**
Kindness	15·25	5·15	10·36	4·50	5·06**
Patience	11·80	4·06	8·36	1·04	5·95**
Wide Interest	21·56	6·66	13·13	8·20	5·59**
Fairness	31·25	12·80	20·41	7·89	5·15**
Moral Character	19·06	6·29	18·13	7·81	0·65
Discipline	14·40	4·64	14·30	4·96	0·10
Optimism	17·19	7·39	16·04	8·22	0·62
Scholary Taste	20·63	6,58	12·91	6·60	5·84**
Enthusiasm	24·69	11·45	12·29	5·49	7·02**

* Significant at ·05 level.

** Significant at ·01 level.

of teaching aptitude. While on cooperative attitude, kindness, patience, wide interest, fairness scholary taste and enthusiasm dimensions, successful rural teachers got significantly (at 0·01 level) higher mean scores than their unsuccessful counterparts.

An observation of table– 4, concludes that there were significant differences, between successful and unsuccessful urban teachers on the dimensions cooperative attitude, optimism, scholary taste (at 0 01 level) and on wide interest (at 0·05 level). In all these dimensions successful urban teachers got higher scores than unsuccessful teachers.

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Table-4 : Teaching Aptitude Scores of Successful and Unsuccessful Urban Teachers.

Dimensions of Teaching Aptitude	SF Teachers Mean	N=52 SD	USF Teachers Mean	N=48 SD	Obtained *t* value *df*=98
Cooperative Attitude	14·35	6·08	11·13	4·71	2·97**
Kindness	7·14	5·72	15·27	6·65	1·50
Patience	14·67	2·60	15·13	3·80	0·70
Wide Interest	25·90	9·38	21·80	6·35	2·57*
Fairness	28·91	6·95	27·10	8.54	1.15
Moral Character	21·27	5·40	19·69	6·80	1·27
Discipline	16·50	5·52	15·20	6·18	1·10
Optimism	18·80	8·10	14·90	5·30	2·86**
Scholary Taste	19·50	8·70	14·60	6·00	3·42**
Enthusiasm	22·80	9·70	20·40	9 00	1·28

* Significant at ·05 level.
** Significant at ·01 level.

Major Findings : 1. When all dimensions of teaching aptitude considered together, all groups (Male, female, rural, urban and total) of successful teachers were found to be significantly higher than unsuccessful teachers at 0 01 level of confidence.

2. Successful male, female, rural and urban teachers were found to be significantly better than unsuccessful teachers, on the dimensions—cooperative attitude, wide interest and scholary taste. While the teachers of all these groups were found to be similar on moral character and discipline dimensions of teaching aptitude.

3. When all teachers considered together, it was found that there was no significant difference, noticed by successful and unsuccessful teachers on-moral character, discipline and optimism dimensions. On the other hand successful teachers were found to have significantly higher scores on cooperative attitude, kindness, patience, wide interest, fairness, scholary taste and enthusiasm dimension of teaching aptitude.

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